DOCUMENT RESUME

ED 185 726 EC 123 536

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TITLE Teacher Preparation in Secondary Learning Disabilities at Cardinal Stritch College.
INSTITUTION Cardinal Stritch Coll., Milwaukee, Wis.
SPONS AGENCY William M. School Foundation, Chicago, Ill.
PUB DATE Dec 79
NOTE 105p.

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS Adolescents; Federal Legislation; Higher Education; *Learning Disabilities; Literature Reviews; National Surveys; *Program Descriptions; *Secondary Education; State Legislation; Student Characteristics; *Teacher Education; Teacher Role
IDENTIFIERS *Cardinal Stritch College WI

ABSTRACT

The report discusses preparing secondary teachers to work with learning disabled (LD) students, and describes a secondary teacher preparation program in learning disabilities at Cardinal Stritch College in Milwaukee, Wisconsin. Aspects considered include the role of the secondary LD teacher, the period of adolescence, "survival" curricula, national surveys on programing options, and choosing a program option. Recent literature relating to LD program development is summarized, along with some relevant state and federal legislation. Characteristics associated with LD students are reviewed and the preparation of a secondary LD teacher is examined. Suggestions and resources for both the teacher trainer and the secondary LD teacher are presented, covering such areas as reading, mathematics, written composition, spelling, and career awareness/vocational education. Included in the five appendixes are a mainstream behaviors checklist and a list of educational materials for the secondary LD student. (DLS)

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TEACHER PREPARATION IN SECONDARY LEARNING DISABILITIES

AT

CARDINAL STRITCH COLLEGE

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DECEMBER, 1979

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CHAPTER ONE

Teacher Preparation In Secondary Learning Disabilities: Perspectives

Introduction

Intensive work on the part of professionals and parents has resulted in the recognition of the problems of young children with learning disabilities. Many college preparatory programs offer a comprehensive curriculum to train teachers to successfully identify and plan programs for these children. In the meantime, the children for whom all the work was done have become adolescents. Because of the short time that professional attention was directed towards the adolescent student with learning disabilities, both the colleges and the school systems were challenged to develop appropriate training programs and quality delivery systems as quickly as possible.

Junior and senior high school teachers who enrolled in college courses found a program developed to meet the needs of the younger child. Elementary school teachers who earned a K-12 license in learning disabilities and were employed in secondary schools were overwhelmed. They were certified from kindergarten through high school, but their training hardly prepared them for the LD adolescent. The wide variety of secondary curricular offerings, the highly specialized "subject oriented" staff, and other complex problems confronted elementary teachers who moved into secondary school positions.

Within the last three years, departments of special education in the State of Wisconsin recognized the obvious need to separate the elementary learning disabilities program from the secondary learning disabilities program. Cardinal Stritch College developed a separate program

for teachers of adolescent students with learning disabilities that was approved by the State Department of Public Instruction, to begin in September, 1975 (see Appendix A). A Director for the Secondary Program was appointed in June, 1976.

While the coursework in the sequence was developed individually by the professionals teaching in the sequence, it was the general consensus of this group that there was a need to coordinate these individual efforts to develop the most effective program possible.

The Chairperson of the Department of Special Education called together the faculty of the program and the Program Director to discuss these concerns. The group identified their major needs as the following: (a) the need to conceptualize what the role of the Secondary LD teacher is, and what it ought to become; (b) the need to develop an appropriate sequence of courses and experiences for the graduate student while avoiding unnecessary overlap of material; and (c) the need to explore new course objectives and new courses that recognized that unique demands placed on secondary teachers. The Director of the Secondary Program was asked to co-ordinate efforts to meet these needs.

At the beginning of this investigation there were approximately fifty-five students who had chosen the secondary sequence leading to LD certification (7-12) only, or who were enrolled in the Master's degree program in Special Education, specializing in secondary learning disabilities. Twelve special education faculty members taught in this sequence with additional coursework offered by the Departments of Reading and Psychology.

During the past two years, the Director gathered data from a wide variety of sources. A trip to the State Department of Public Instruction in Madison was made to discuss the proposed state guidelines for Secondary Programs. The existing course syllabi were collected along with input from the staff on possible additions and deletions in their course offerings. Informal discussions were held with certain part-time staff who held full-time public school positions in the area of secondary learning disabilities. The Director had the opportunity to visit several city and suburban secondary LD programs in the Milwaukee Metropolitan area to discuss their needs. Through the Secondary Committee of the Wisconsin Division for Children with Learning Disabilities, the Director was able to identify the areas of concern of secondary teachers in Southeastern Wisconsin. Summaries of current research on curricular development for secondary learning disabilities were reviewed. The Wisconsin Department of Public Instruction sponsored four training institutes on the topic of the career educational-vocational needs of LD-ED adolescents.

The special education faculty met as a group to discuss the role of the secondary LD teacher, the types of competencies required of these teachers, and the unique issues surrounding this specialization. Of particular concern were issues such as: implementing new Federal and State legislation; academic remediation vs. "survival for adulthood" training; interest in pre-vocational counseling and school programs for the LD adolescent; and mainstreaming students into junior high or senior high courses.

From these contacts, the following objectives were met during the 1976-77 and 1977-78 years:

1. A description of the existing role of the secondary LD teacher.

2. A description of the role of the secondary LD teacher in the future; including retraining of the regular classroom teacher in LD.

3. The development of a set of behavioral objectives under five general headings: Philosophical Foundations of Special Education; Assessment and Evaluation; Instructional Methods and Techniques; Developing Good Working Relationships with Adolescent Students; and Developing Good Working Relationships with Parents and School Personnel.

4. The assignment of these objectives to the appropriate course in the secondary program sequence (see Appendix B).

5. The distribution of the behavioral objectives document to the faculty for review and revision.

5. Individual and group faculty meetings to discuss the needed revisions.

7. Revision of the behavioral objectives document. This revision was sent to the LD faculty so they could teach from their prescribed objectives during the Spring Semester, 1977.

8. The development and administrative approval of a new course offering, SEd 547 - Issues in Special Education (see Appendix C). This course was needed to develop competencies not covered in the old sequence, meet the proposed state guidelines, and as a substitute for SEd 529 - The LD Adolescent: Issues and Problems. (The coursework in SEd 529 was found to overlap to an unnecessary degree with other required courses.)

9. The development and inclusion of pertinent information concerning the career educational-vocational preparation of LD adolescents as a part of the coursework required of all students.

Program Development

Program development in secondary LD at the college level is a process

of review, implementation of new ideas and refinement of the teaching of the generally accepted information. The data base for the teaching of secondary LD teachers is inadequate to support any one apparent programming solution for LD adolescents. All conclusions should be viewed as tentative answers, while better alternatives are continually explored. It is difficult to develop and refine teacher training programs where there is a lack of consensus as to the definition and prevalence of learning disabilities; the characteristics of the secondary LD population in relation to the elementary LD population; research evidence supporting the viability of current programming models; and evidence concerning the training and personal characteristics of successful secondary LD teachers. A review of the literature as reported in this writing will, in all likelihood, be outdated within a relatively short time as these areas of concern are studied in a systematic matter with the proper research methods. Longitudinal studies of the effects of secondary LD programming upon the later success of LD adolescents are certainly needed. These data will not be available for many years.

The Student

The secondary LD program at Cardinal Stritch College is a graduate level program. It is our position that the information and skills, as spelled out in the program objectives, are best attempted by experienced teachers who have a strong foundation in general education. The vast majority of the graduate students have been successful classroom teachers, although a few students are recently licensed graduates of undergraduate

teacher training institutions. Students are admitted upon evidence of a 2.5 GPA and a teaching license. The students have a wide variety of educational backgrounds such as physical education, art, history and English. Secondary teachers have had some exposure to education with a heavy emphasis in their academic area of specialty (i.e., history, English). They are generally not familiar with the teaching of a wide variety of basic skills, as is the case for a person licensed to teach in the elementary school. However, they are generally mature, capable adults who are currently employed in the local school systems and who wish to develop their capabilities in a new direction. Because of fiscal constraints, many candidates for the secondary LD license cannot afford to leave their present employment in order to complete their student teaching practicum (one semester - half days). Therefore, many graduate students complete an MA degree without obtaining the LD license.

The Objectives of the Program

One of the challenges of program development at the college level is to develop a realistic training sequence within the constraints of a manageable number of graduate credits. Master's degree programs traditionally are granted on the basis of thirty or thirty-six credits. The certifying sequence at Cardinal Stritch College for learning disabilities is currently twenty-six credits without the additional coursework required for the MA degree.

Within this framwork, the college endeavors to prepare secondary learning disability teachers to meet the wide variety of demands asso-

ciated with the role of an LD teacher.

As a foundation, it is necessary to have a thorough understanding of the individual adolescent and the learning process; skills and ability in differential diagnosis and remediation; the power to organize and implement individualized prescriptive learning assignments; and the communication skills to deal effectively with parents, teachers, administrators and community groups. At the secondary level, there is the unique challenge of working with a larger, more diversified staff, and the crucial need to implement an effective career awareness-vocational education curriculum. Because of the relatively recent development of programs for secondary students with learning disabilities, the secondary LD teacher must often assume an on-going responsibility for program development. Therefore, the secondary LD teacher must be cognizant of and able to benefit from research findings in the broad area of Special Education and specifically in the area of secondary learning disabilities.

This would imply an adequate educational background in the following areas:

A. Philosophical Foundations of Special Education

Student will be able to:

1. Outline the historical development of the discipline of special education;

2. Relate the historical development of the law as it relates to LD students;

3. Define the concept of learning disabilities, including the accepted definition used in Federal guidelines, Chap. 115, and the operational definitions under evaluation by DPI and the major professional organizations;

4. Identify the general characteristics associated with adolescent students who have learning disabilities;

5. Outline the historical development of the discipline of learning disabilities;

6. List and explain the general educational goals for the adolescent student;

7. List and explain the general objectives for the teacher of the adolescent LD student, as outlined for the secondary program;

8. Describe their own philosophy on educating special children, including why they believe in their pupils and their ability to learn and progress;

9. Outline the positions of the major theorists in the field of learning disabilities;

10. Critically read and discuss the major articles and federally subsidized studies affecting the trend toward least restrictive alternative legislation (Dunn, Blatt: Issues in Classification of Children);

11. Relate the philosophical development of law as it relates to LD students;

12. Describe the major schools of thought that affect the way children are placed and educated in our society, (i.e., Psychomedical, Behavioral, Sociological, Existential).

B. Assessment and Evaluation

Student will be able to:

1. Apply knowledge of the basic tenets of measurement and statistics (reliability, validity, norms, criterion reference testing) to the realistic use of formal assessment instruments;

2. Recognize the variables identified as part of specific learning styles and how they affect prescriptions for professionals and parents;

3. Will be knowledgeable in the content and conceptual modes of the ITPA in order to use this structure as one foundation for evaluation;

4. Utilize diagnostic information from the process of teaching, testing, and reteaching;

5. Utilize diagnostic observation, including keeping anecdotal records (and structuring tasks) to discover pertinent information about a child's learning style;

6. Utilize formal and informal assessment instruments, both at the level of administration and interpretation;

7. Utilize pre-vocational and vocational assessment instruments where needed to provide information to the student and his parents;

8. Use the skills in objectives 1-7 to write an Individual Education Plan for each student;

9. Write asset-deficit summaries of a child's strengths and weaknesses in process, academic and behavioral areas;

10. Write prescriptions for sequential teaching and/or activities that regular classroom teachers, parents and other specialists can use;

11. Use assessment and evaluation techniques described above to discuss a student's exceptional educational needs;

12. Assist other professionals on an M-team to draft a student's total education program.

C. Instructional Methods and Techniques

Student will be able to:

1. Observe model LD programs operating at the Jr./Sr. high school level in order to provide models of excellence;

2. Discuss the sequence of normal language development as it affects adolescence;

3. Identify the sequence of developmental reading and strategies employed for students with normal learning styles;

4. Relate the sequence and scope of the skills and concepts in reading, mathematics, spelling, handwriting and composition (written and oral);

5. Discuss the general scope and sequence used in teaching other content areas;

6. Choose appropriate materials to match the developmental level of the student;

7. Utilize as many techniques and methods as possible, including effective classroom organization, learning centers, games, visual and auditory prompts and so forth;

8. Integrate the teacher's philosophical background with the needs of adolescents to develop effective classroom organization;

9. Identify the major language disorders as they relate to adolescent students;

10. Discuss (1) perceptual processing, (2) linguistic processing, (3) cognitive-semantic processing as they affect the learning styles of adolescents;

11. Apply task analysis to every learning opportunity;

12. Operate technical equipment and use a variety of media to facilitate learning;

13. Be familiar with what is available on the market and be able to judge the usefulness of new materials;

14. Be proficient at testing the readability of textbooks; and be able to modify the high school curriculum where necessary to accommodate the learning disabled student;

15. Plan curricular activities and manipulate environmental contingencies to remediate basic learning deficits;

16. Write clear leason plans that include: behavioral objectives appropriate to the student's academic needs, learning style, and the sequence of skills to be taught; age appropriate materials and procedures that employ a wide variety of motivating strategies; accurate evaluation of whether the objectives were met, including evidence of pre- and post-testing for an objective;

17. Identify the career options available to the high school student, including higher education, apprenticeships, technical training, exploratory vocational programs, in-school supervised work programs, and work-study programs that could help the student decide on appropriate career goals.

D. Developing Good Working Relationships with Adolescent Students

Student will be able to:

1. Discuss the normal, developmental, psychological growth of adolescents;

2. Evaluate one's own needs so that the LD adolescent student might be served in a better way;

3. Discuss techniques of encouragement to facilitate development of a healthy self-concept in young adults;

4. Utilize techniques employed in good communication models (Glasser, Gordon, Driekurs) to facilitate development of responsible, independent behavior;

5. Participate in counseling exercises (role playing, triads) to practice effective communicative skills and problem solving techniques;

6. Utilize the tools of behavior modification where needed to increase academic achievement and enable the student to play the role of the normal student;

7. Plan management systems that enable a student to rely less on extrinsic motivation, and more on self-directed goal-oriented reasons;

8. Explain the student's strengths and weaknesses to parents and other professionals so that good living and working relationships are enhanced;

9. Discuss realistic goals and career orientation with the students;

10. Counsel the student so that he/she will be able to realistically know his/her strengths and develop courage to compensate for any weaknesses;

11. Identify the community medical and social agencies that provide services to adolescents and their families;

12. Utilize techniques of encouragement to facilitate development of a healthy self-concept in young adults.

E. Developing Good Working Relationships with Parents and School Personnel

Student will be able to:

1. Communicate clearly the educational program to parents, teachers, administrators and community groups;

2. Develop and interpret the student's Individual Educational Plan with the parents, especially as it concerns possible vocational opportunities;

3. Develop and maintain effective staff relationships to facilitate mainstreaming and general program implementation.

Secondary LD teachers prepared through the Cardinal Stritch certification sequence are expected to have the basic skills needed to perform well in the variety of programming options available in the school districts in Southeastern Wisconsin. Deshler (1978) identified three major programming options: "programs with a remediation emphasis, programs with a compensatory emphasis, and programs built around an alternative curriculum emphasis" (p. 7). The Stritch program emphasizes the role of the special education teacher as practiced in the first option, "programs with a remediation emphasis". However, graduate students are taught a set of generalizable skills so that some graduates have developed programs similar to the other options, as they perceived the unique need of their students and the particular school environment.

Therefore, because of the diverse backgrounds of its students and the wide variety of possible employment situations for these teachers, the Stritch program essentially uses an eclectic approach. For example, our teachers are not prepared to become only consulting teacher, resource teachers or experts in alternative education.

In the coursework, the students are taught both the process approach and its usefulness as outlined by Johnson, Blalock and Nesbitt (1978) and a behavioral or task analysis approach (Hallahan and Kauffman, 1976). The emphasis is on utilizing a wide variety of diagnostic data to develop appropriate teaching strategies.

The Purpose of this Book

The purpose of this writing is to provide students, faculty and professional educators interested in teacher training at the graduate level with a reference book concerning the history and development of the Stritch program; the present and future roles of the secondary LD teacher; a concise overview of the literature; an outline of the highlights of the curriculum as developed in the coursework; and a materials list.

The Role of the Secondary LD Teacher

The Resource Room Model. The following description of the role of the secondary learning disability teacher is a summary of discussions and observations of the role as it is currently filled by professionals in Southeastern Wisconsin. This description has important implications for realistic program development.

In the recent past, the typical secondary learning disability teacher had a resource room located within one school. This was typical of the country as a whole. McNutt and Heller (1978) reported that the resource room was the most popular service offered. The teacher had a caseload of 12-20 students who visited the resource room from one to four hours a day. The student attended a regular homeroom and was mainstreamed into other

regular classes the rest of the day. As a member of the faculty, the learning disability teacher usually had one preparation period to plan for the students and to confer with the other teachers.

Although it was widely recognized in the law (Wisconsin Chapter 115) and in special education texts that the major responsibility for a student enrolled in a resource program rested with the regular classroom teachers, the opposite situation occurred. When the student was identified as having a learning disability, the resource teacher assumed or was given the responsibility to plan the Individual Education Program (IEP). This program included covering the basic skills, advising the student and acting as an advocate with the staff to obtain the needed credits for graduation, adapting the regular coursework, arranging for work-study or other vocationally orientated programs, counseling the student to try to achieve in his/her regular coursework, confering with the parents on attendance, achievement and future opportunities and so on. These responsibilities demanded the skills of the secondary school counselor, a remedial reading teacher, a successful arbitrator and public relations executive, a tireless professional administrator who could write, execute and evaluate lengthy reports required under state and federal law. It was not surprising that the average length of employment for the learning disabilities teacher in Wisconsin, in general, was about 3.8 years (Russell, 1979). For the secondary teacher it may have been even shorter.

In today's learning disability programs, there are often two teachers in a building. This has greatly increased the flexibility of programming that can be accomplished. One teacher can concentrate on direct instruction

while the second teacher does diagnostic testing, coordinates efforts with the regular education teacher and oversees the vocational education component of the student's programs.

In general, the programs are developed out of a resource room format, although perhaps there are better provisions that could be made for the severely handicapped, learning disabilities student.

Each year, new materials for adolescents with academic deficiencies appeared on the market. Knowledge of these materials and how to adapt them to a resource program was passed from teacher to teacher on an informal basis. As of now, there is no consensus about which materials or subjects should be used in the junior high or senior high. Teachers who have the same student for many years are constantly searching for new materials and ideas to provide variety for the student.

The resource room model posed its own challenges to the learning disabilities teacher. The majority of students on the caseload may bave been programmed into the resource room during any given hour. These eight to ten students needed individual help if they were to benefit from the program.

Jenkins and Mayhall (1976) reviewed a number of studies on the effectiveness of the resource room model. One important conclusion was that the effects of various teacher-pupil ratios (1:1, 1:2, 1:5, and 1:20) indicated that the greatest loss in academic achievement occurred as the instruction ratio changed from a tutorial (1:1) setting to the smallest group setting (1:2). One-to-one, cross-age or peer tutoring was found to be overwhelmingly superior to small group teacher instruction. This

conclusion, along with the research substantiating the need for daily, direct instruction, indicated that while the teacher-planned work basket approach may have been the only reasonable approach to handle large number of students, it was an ineffective model for the student who was achieving far behind his/her peers. Because of the existing role demands placed upon the secondary learning disabilities teacher, and lack of adaptation of direct instruction methods within the resource room model, daily, one-to-one, intensive instruction generally has not been done with each student on the caseload. This kind of programming is changing slowly.

Assessment Procedures. There are many issues surrounding the delivery of services to the secondary learning disability student. Where the resource teacher had a direct role in the screening, testing, evaluation and entry of a student into a secondary learning disability program, a greater degree of job satisfaction has been reported. Some school districts utilized auxiliary personnel who assume this responsibility. The student was placed in the resource room through a team decision made without the teacher's input. The teacher then conducted an informal evaluation and attempted to utilize the data presented by the diagnosticians. This was time-consuming and gave the resource teacher a feeling of lack of control over the learning disabilities program. In Wisconsin, this problem is on its way to being solved by the eventual phasing out of the roles of some of the auxiliary personnel.

Components of Effective Programming and Survival Oriented Curriculum. A major issue facing the secondary learning disability teacher is the need to provide total programming for the learning disability adolescent. It

is commonly recognized that more imaginative programming is needed. Ideally, the students should enter into the planning and establish individual goals through meeting with the teacher and counselor. Furthermore, total programming means a well-planned career awareness and vocationally oriented component, in addition to an academic component. It is important to differentiate between a realistic, well-thought-out, pre-vocational and vocational component that takes into account the psychological functioning or maturity level of the learning disabilities adolescent, and a hit and miss series of units on such topics as practicing job interviewing or doing a checkbook unit in the seventh grade. Bingham (1978) reported that learning disability adolescents in grades six and ten were significantly behind their normal peers in orientation to work and decision making related to careers.

When discussing total programming, many graduate students and teachers present at professional meetings have voiced a concern on when or whether to stop formal academic remediation and begin a survival oriented curriculum.

In the struggle to meet the demands of programming for ever-growing numbers of students, there has been a shift in thinking on the part of some learning disability teachers. There has been less emphasis on tailoring an Individual Educational Plan using the existing school and community resources.

Instead, a vocationally oriented curriculum was set up specifically for the learning disability adolescents as a group. At times, these students were pooled with students identified as having emotional disabil-

ities, mental deficiencies or who were slow learners. In the rush to find workable administrative ways to program for these students and to circumvent uncooperative personnel on the school staff, or the outdated curriculum the learning disabilities teacher had often taken on the colossal task of rewriting and developing a separate curriculum.

Though this approach may be criticized because of its time-consuming nature alone, there are many more fundamental faults. First, it ignored the nature of a learning disability. A student with a learning disability can have potentially average or above average intelligence. Many learning disability students have many good verbal skills and learn well through discussion and interaction. Others have excellent visual and manipulative skills and will do very well in blueprints, drafting and automotives, for example. In summary, many of these students are now profiting from the regular high school curriculum with some modifications. Others are learning high school level material in alternative classes taught by the learning disabilities teacher. Direct intensive instruction can be given to a student that will help the student develop the basic skills needed to succeed in a regular class.

The colleges are partly to blame for not emphasizing sound alternative instructional methods in the basic subjects. Too often the secondary learning disabilities teacher takes the regular curriculum and teaches it in the same manner as a classroom teacher, with the addition of more drill, less cluttered materials, and perhaps a slower pace. These teaching principles are essential to a tutorial situation, but a learning disabilities teacher needs a wider variety of techniques.

Secondly, developing an extensive curriculum apart from the regular curriculum enabled the regular staff to continue teaching using a lectures-discussions, textbook-text orientation. There was no need for the staff to learn new ways to reach the atypical student. Other students who could benefit from individualization and more realistic learning outcomes, sat in these classes without supplementary help. Meanwhile, the learning disability students drifted farther away from their peers in the mainstream.

One of the tenets of the sociological school of thought in education has been that a person is primarily a social being who develops an adequate self-concept or feelings of self-worth in the context of the social group. The learning disabilities student is well aware of the abilities, achievements, and roles played by the age group to which the student belongs. The learning disabilities student measures his/her own progress against the peer group in general, not the peers in the resource room. To the extent that the learning disabilities student is separated out and treated differently from these peers, the student will feel he/she is falling farther and farther behind the rest of the group. These feelings of discouragement lead to a withdrawal from the group, frustration, and perhaps, a sense of giving up. This is the time when a highly verbal, active student becomes very quiet and discouraged. These attitudes become a major obstacle in the path of any academic achievement.

A third major concern surrounding the development of a separate curriculum is that the nature of many of these attempts is solely survival oriented. This curriculum assumes, as Deschler and his colleagues (1979)

pointed out, "that the learning disabilities student is less functionally competent than his peers, that survival skills are identifiable and stable, over a period of time (i.e., a checkbook in a moneyless society); that the student's chances of succeeding in a traditional program are minimal, and that the learning disabilities teacher alone can adequately meet the needs of the student" (p. 393).

Skills such as how to make a hamburger, pass a driver's test, fill out a social security form, file for unemployment compensation or welfare are taught in place of basic skills in reading, writing or consumer math. While there may be a place for all these skills in the curriculum, there is a danger that the learning disabilities adolescent, as a part of a group, will be subjected to a survival oriented curriculum without regard for individual differences. There are college bound learning disability students, as well as those on the verge of dropping out.*

The Period of Adolescence. It is important to review the basic life tasks of adolescence, especially for those of us who do not have teenagers at home. First, teachers must recognize and remember that according to most psychological theorists (Hall, Gesell, Freud, Erickson) the search for an identity or a sense of self is the major task of the young person during adolescence.

This is a period where most people integrate the physical, social, intellectual and emotional parts of their personalities. If this integration is not allowed to take place, "some individuals crystalize too

*(For a collection of case histories of LD students, see Lewis, The Other Child Grows Up, 1977).

early, defining themselves along very narrow dimensions--often to avoid the feared possibility of identity diffusion: (Dreyfus, 1976, p. 11). An athlete may gain much recognition and see him/herself only within the confines of this very temporary role. A student may defeat failure and rush prematurely into a role to avoid choosing an alternative that is tempting, such as a girl who becomes a legal secretary rather than a lawyer.

The world of work is explored in the regular curriculum beginning the early grades. Learning disability teachers can take advantage of these opportunities to work with their students in a more thorough fashion. There is a natural progression of interest as a person grows older and many options are presented to all junior high students in most districts. Generally, there is no more reason why a thirteen-year-old learning disabilities student would or should know what career to pick that a non-learning disabilities student, at thirteen, would know. In light of the Bingham study (1978), perhaps there is reason to suspect that the learning disabilities student would have more immature attitudes. As the student matures, he/she will develop a variety of interests and skills. Individually tailored plans can be made, especially with the help of the parents, to help a student explore these alternatives within the local school and community. The parent's cooperation is needed to see that the student assumes responsibility for chores and some types of part-time work (yardwork, shoveling, babysitting) at the junior high level, to help him/her develop many skills over a long period of time.

The average learning disabilities student, like the average adolescent,

does not have to have a self-supporting career at eighteen. This society allows the older adolescent to try out many options in the world of work, or types of schooling or the armed forces, while living at home, with a group of friends or on a base. Today's young adults may not hold full-time employment until they are 21, and many drift until their mid-twenties before settling into an adult routine.

In summary, there is no need for the secondary learning disabilities teacher to panic at the thought that the student is getting older and is behind in school. The law provides for education for these pupils until the age of 21. The learning disabilities adolescent needs time to grow up. All adolescents can benefit from consumer math and exploration into the world of work. Where the school has no adequate provision, these can be offered by the learning disabilities teacher, perhaps to the general student body along with the learning disability students. The teacher must be careful of how these subjects are taught. The learning disabilities adolescent is especially vulnerable to methods and materials that say he/she can't make it like the rest of the students.

The Survival Curriculum. Should a "survival curriculum", apart from what is normally taught to all adolescents, ever be used? Of course, with certain students it appears to be a necessity. Unfortunately, the early attempts at screening students and placing them in learning disability classes resulted in a wide variety of "high-risk" cases being enrolled in the programs. These students were severely, academically retarded for a number of reasons familiar to experienced teachers. Their behavior was characterized by a high degree of absenteeism, a feeling of hopelessness,

and a lack of energy for any kind of academic work. They wanted to get out of school and the chances of reaching them with daily, intensive remediation were poor. This minority deserved a chance to learn survival skills whenever a teacher had a chance to reach them. But they are in the minority, especially as school districts implement better, earlier screening, in-service for regular faculty, and the development of a more flexible curriculum for all. In the meanwhile, the resource teacher should concentrate on allowing the learning disabilities adolescent the chance to create his/her own identity by staying as close to the mainstream as possible. To the extent that a learning disabilities adolescent attends school on a daily basis and tries, he/she should be given a challenging and appropriate curriculum and the continuum of career options given all adolescents. (As the learning disabilities student matures, he/she can investigate choices to see if they are realistic, considering his/her abilities.) The year before a student is to finish formal schooling, perhaps at the age of 20, special emphasis may be put on those "survival" skills needed by a particular student and missed by the regular curriculum.

National Surveys. National surveys have been done on the variety of programming options available in the country. In the March, 1979, issue of Academic Therapy, Deshler, Lawrey and Alley reported the results of their survey on programming alternatives. They cited options with the percentage of programs reporting that option:

45% - Basic skills remediation approach

24% - Tutorial approach

17% - Functional curriculum approach

5% - Work-study approach

4% - Learning strategies approach

Last fall, Deschler (1978) described three general options: programs with a remediation emphasis, programs with a compensatory emphasis, and programs built around an alternative curriculum emphasis. These three general options are the major approaches to programming in Wisconsin.

In the basic skills remediation approach, efforts are made to bring up the level of the student's ability to read, write, spell and calculate. For students with severe academic deficiencies, these programs attempt to increase overall literacy in the students--a basic function of the schools in society. These skills make them desirable candidates for the armed services or vocational programs, and without them, they are severely hindered from pursuing many options in the world of work. Furthermore, a student's self-concept must be dramatically affected by the fact that he has not learned what everyone else appears to have picked up so easily. Our teachers have made substantial progress with learning disability adolescents functioning below the 4th grade level in academic skills, even at the high school level. Their results are encouraging, and merit further research and dissemination.

A tutorial and/or compensatory approach emphasizes helping the learning disabilities student to succeed in the mainstream through a variety of tutorial and non-traditional techniques (test taking orally). In addition, some programs emphasize direct instruction in the skills needed to make it, such as "getting along with the teacher, note taking,

outlining, ways to remember information." This approach has worked successfully in districts where the learning disability population functions at 2-3 grades behind, but where many regular education students function far above grade level. The parents of these student have expectations that these learning disability students will go on to college, and a number of them have.

The alternative curriculum approach has often been combined with the work-study approach in our area. This approach was described earlier. Learning disability students may be combined with emotionally disturbed, mentally retarded and slow learners, into a kind of track with remedial courses emphasizing survival skills, and perhaps, a low level civics, earth science, shop courses, or other subject areas.

Choosing a Program Option. What alternative is a prospective secondary learning disabilities teacher to pick if he/she has a choice? (Many programs are entrenched and will be more difficult to alter.)

Graduates of learning disability teacher training sequences at Cardinal Stritch College learn to evaluate certain variables when choosing a program model. There are at least two distinct programs that are viable for our public schools. For both programs, two teachers should be assigned to a building, and the number of students on the caseload should be no more than 30. The exact nature of the program will natually vary with the idiosyncrasies of the school and the personalities of the teachers.

The Resource Room Program. The students are functioning above 4.0 grade level in academic subjects. (There is a general consensus that

this level of achievement means the student can now "read to learn" rather then "learn to read".) He/she has a behavioral profile (see Appendix D) that indicates general readiness for mainstreamed classes. The compensatory model seems quite appropriate. Emphasis is on keeping the student close to the mainstream. Instruction in the components of the language arts program are given through tutoring in regular subjects. Direct instruction may be given in study skills. (See Alley & Deshler, 1979, for a detailed account of a "learning strategies" approach.) Special education techniques are utilized in the tutorial instruction. These include:

1. testing -- pre-testing and post-testing to obtain entry level and mastery level of material. The student can learn to test him/herself.

2. identifying the crucial variable -- (for example, in the homonym pairs "too, to, and two", the essential task is to link the correct spelling with a certain context and/or definition.)

3. utilizing a mediating device -- what can the information be tied in with to improve the chances of remembering it? It can be a mnemonic device such as the example: My very educated mother just showed us nine planets. (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto.) Or, it can be analogy from the student's background, i.e., "annexation" explained from a farmer's point of view. In summary, the teacher needs to assess the student's strengths and weaknesses in general and in a particular academic area (or even knowledge of vocabulary concepts in a chapter of a text) relatively quickly, decide on the crucial variable(s) for success, and use good mediating devices so the information will be remembered.

The teachers may share the responsibility for testing, scheduling students, developing individually tailored pre-vocation or vocational options, or they may divide up these tasks. Students in mainstreamed

classes are followed through the use of a form such as those in Appendix E.

Teachers who develop compensatory programs are often frustrated by the amount of "irrelevant work" given by the content teacher. If curcicular changes and standards are to be changed, it may be better to focus energy on changing them for all students, not just the learning disability students. Learning disability students need to be challenged, learn to work hard and face many of the difficulties of the rest of their classmates. Certain concessions may be appropriate, i.e., taking the test orally, but should be considered as an option on an individual basis. In describing the Resource Room Program, I am describing a student who is functioning on a fairly high academic level. This student may not have an easy time as a secondary student, but hopefully, he/she will be better prepared to meet the challenges of pursuing post-high school education.

The Self-Contained Program. The students are functioning below the 4.0 level in academic subjects. In addition, the student has a behavioral profile that indicates a general lack of readiness for mainstreamed work. Students who have a good behavioral profile, but low achievement in an acamemic area such as reading, may profit from direct instruction under the Resource Room Program, with the addition of more mainstreamed courses.

In the self-contained setting, the students will receive direct instruction in the components of the language arts program, math (especially consumer math) and participate in a highly structured career awareness -- pre-vocational program. It is helpful to think of the

language arts program as consisting of the following components:

1. vocabulary development
2. phonics or structural analysis
3. reading for meaning (comprehension)
4. spelling - taught separately
5. handwriting or written composition

Ideally, these areas should be covered daily, or at least weekly. Vocabulary development in the early stages refers to sight vocabulary lists. Later, students work on recognition, pronunciation and definition of words from the subject matter from their classes. The phonics or structural analysis component can be covered effeciently with most students by using the Corrective Reading Program (SRA), or Glass Perceptual Conditioning Analysis (1971) for students in the Self-Contained Program. Students in the Resource Room Program receive training in higher levels of structural analysis of words, paragraphs, grammar training, poetry and novel analysis, to name a few instances.

Where an approach such as the Corrective Reading Program is not successful, students in the Self-Contained Program may learn to read using a basal series such as the Bank Street Series with junior high students or graded series such as the Reader's Digest Skill Builders with the addition of some basic phonics and Glass Analysis. Where this method is not successful, a multisensory method such as Fernald (1943), may be needed.

The "reading for meaning" component can be met by using an adaptation of Stauffer's (1975) approach with a wide variety of high interest

magazines and paperbacks. This component is easily achieved with students in the Resource Room Program who must study for their regular education classes.

Spelling should be taught as a separate subject on a daily basis. A relatively quick method that has been successful is the AVKO Sequential Spelling Series. Where this approach is not successful, the teacher may want to employ a multisensory approach (pronounce the word, trace it, manipulate letter tiles to make the word, do visual puzzles, write from short term memory, write from long term memory).

As handwriting improves in legibility (the teacher may have to teach this directly or have a typewriter available), the student needs practice in writing words, sentences and finally, paragraphs. Some useful materials include the use of a writing notebook, direct instruction from materials such as the activity Concept Kits-Sentence Writing Packet, the Scope English Program-Grammar and Composition, or the hard cover text, English For Everyday Living.

In the Self-Contained Program, the students may be enrolled in the following courses in a self-contained setting:

1. Reading
2. English and the Language Arts
3. Math
4. Alternative courses that parallel the regular course content (earth science, world history, etc.) for the student's level
5. Career Awareness/pre-vocational component

These alternative courses attempt to develop the skills listed on the

behavioral checklist (Appendix D), as well as cover course material. These courses may be team taught where a regular education teacher has an open period or by a learning disabilities teacher. It is important to avoid scheduling these learning disability students into a low track as a matter of policy. These courses may have been designed with the slow learner in mind and can be discouraging to the learning disabilities student. Instead, some learning disability teachers have accomplished a readiness for mainstreaming in the regular track by keeping the entering class in a self-contained setting for only the initial year in the building. In that first year, under the Self-Contained Program, the student gained academic skills and behaviors needed in the mainstream; and became familiar with the building, its staff, schedules, and student body. The learning disabilities teacher had a chance to evaluate the student in-depth. This knowledge aided the teacher in scheduling for the next year.

A third program could be developed for the "high-risk" student who was described as a candidate for a totally new alternative approach. This program option cannot be described here, but it is important to realize that other programs may be appropriate for certain students.

In conclusion, there are a variety of programs similar to these programs operating with many successful graduates or near graduates. These programs also have their share of failures, and a new teacher should expect that program development at the secondary level is a progress of slow, but steady improvement in overall results. Every good teacher remembers the student who slipped away. Our programming efforts

are at a very early stage of development, so that these ideas may be outdated shortly. It is important to communicate successful options at every opportunity.

A Model Program for Mildly Handicapped Junior High LD Students

Program development is affected not only by present role considerations. It is helpful to look ahead to more workable roles for the secondary LD teacher. The role description outlined here is a resource program currently operating in Southeastern Wisconsin. It has several promising features that meet the needs of the students, the faculty and the LD professionals employed in the schools.

Two teachers are assigned to a junior high building where approximately thirty-six students have been identified as having learning disabilities. Almost all of these students were identified in the primary grades and received specific instruction from a primary LD teacher. Very few new students are accepted into the junior high LD program.

The junior high staff consists of dedicated master teachers who have participated in many in-service courses offered by a local college. They consider it their responsibility to individualize for the wide variety of learning needs found in any group of students. They often confer with other teachers and the LD personnel to get ideas and material for their atypical students.

While the LD teachers technically "staff" a resource room, no student is programmed into the resource room on a daily basis. Each student follows an individual program of regular classes chosen by the LD staff

and the counselor. If the student has a severe reading disability, direct instruction is given by the remedial reading reacher. The LD teachers visit the regular classes daily to work with their students. If a student has a great deal of difficulty in a basic concept, intensive, one-to-one instruction is given to the student in the resource room. This is on a short term basis and often occurs before classes begin in the morning. At this time, the LD students currently enrolled in the program are receiving satisfactory grades. Both the parents and the regular teachers are pleased with their academic progress.

The LD teachers are free to sit in on M-Team evaluations that may include a half dozen staff members, as well as diagnostic personnel. These meetings may last the entire school day. The emphasis of the evaluation is to enable the regular teachers present to adapt their teaching strategies and materials to the needs of a particular student. The student is seldom referred into a formal exceptional education program. Instead, the emphasis is placed upon using the available resources, including auxillary personnel, to solve the educational problem.

For this program to work successfully, it is necessary to have a highly trained staff, and avialable auxiliary personnel such as the counselors and the remedial reading teacher. One of the goals of the Secondary LD Program at Cardinal Stritch College is the recruitment of experienced secondary personnel who would pursue graduate study in the field of learning disabilities while retaining the role of a regular classroom teacher. An entire faculty could elect to take a course in a secondary sequence which would be offered at the secondary school for in-service

or graduate credit. There is a critical need to retrain the highly specialized content area teachers in methods and materials for exceptional students.

Counselors and remedial reading teachers need the time, techniques and materials appropriate for secondary LD students. If these trained auxiliary personnel were available to the LD teacher, more time would be available to work in the mainstream.

In summary, this brief description of an actual learning disabilities program for mildly handicapped junior high students presents exciting possibilities for a workable program that adheres closely to the basic principles outlined in this writing.

Adolescent LD students need the chance to help plan appropriate individual educational goals to be achieved within the regular classroom whenever possible. A single learning disabilities teacher cannot handle the large numbers of students identified for the program if each student is dependent upon the teacher for intensive remediation of basic skills, especially reading skills; instruction in required subjects for graduation; counseling and vocational planning, arrangement of work-study or off-campus schooling; and help in the regular coursework.

Where LD students are mildly handicapped, efforts must be made to develop competencies in the secondary school staff so they may be responsive to the needs of their students. Realistic considerations include the reduction of class size to allow time for handicapped learners, as well as in-service coursework on an on-going basis. Where students are more severely handicapped, the district should provide an alternative

to the resource program.

The programming option that is finally adopted may include elements from more than one model as outlined in this chapter. The secondary LD teachers in a particular school are often in the best position to develop an appropriate program for their students. Therefore, the options are described as possible viable models to provide some guidelines for comprehensive program development.

CHAPTER TWO

A Summary of Recent Literature Relating to LD Program Development

Introduction

Labeling a student with a handicapping condition such as learning disabilities is a complex process. With the inclusion of learning disabilities as a major handicapping category in Federal law 94-142, there was an obvious need to publish a set of regulations to implement the law. The Federal learning disabilities criteria published on December 29, 1977, have precedence over the previously published state regulations on learning disabilities in Chapter 115, Wisconsin State Statutes (Sec. P. I 11.34 g). There are differences between these two standards for eligibility for the label of learning disabled. In the next months, there will be an adjustment of our state law to conform to the Federal law. As the research base in the field of learning disabilities expands, there will be revisions and refinements of these guidelines. Therefore, it is necessary that a professional, specializing in learning disabilities, know the basic characteristics traditionally associated with learning disabilities and their usefulness in the diagnostic process.

The Discrepancy Model

The one characteristic common to all definitions of learning disabilities was the existence of a significant educational lag or discrepancy "between expected and actual achievement" (Gearheart & Weishahn, 1976, p. 116).

It has been assumed that the existence of large discrepancies between

certain types of intellectual abilities and/or academic performance indicated a disturbance involving some basic psychological process. In a recent study on the definition and prevalence of learning disabilities among public school and adjudicated boys, ages 12-15, Campbell (1978) developed a definition of learning disabilities based on descrepancies within the data collected on a subject. He defined learning disabilities in the following manner:

> Learning disabilities is characterized by pronounced intrapersonal differences in ability to perform a variety of verbal, quantitative, and manipulative tasks because there is some non-obvious interference with the process of receiving information, of utilizing it in cognitive processes, or of communicating the results of cognition. (p. 2)

A set of discrepancy indicators was developed.

When a sample review of forty-two LD/non LD decisions using two additional judges resulted in the challenging of 13 decisions by one judge and nine by two judges, Campbell decided to prepare a decision algorithm for uniform application by computer. These decision rules featured the use of six descrepancy points in the relationships of the WISC-R (using Witkin factors) and the reading and math scores. In cases where the student achieved only two of the required three discrepancy points, a behavioral checklist was used. The specific details of these decision rules were reported in detail and should be studied. Where a student did not demonstrate any of the required discrepancies, the criteria for inclusion as LD also included underachievement (t-scores of 40 or less) with a full scale WISC-R of 33 or more. The study reported a prevalence rate of 16% for public school boys and 32% for adjudicated

boys (ages 12-15). An additional 3% were identified in the public school, but were found to be achieving at grade level.

These prevalence rates were high when compared to traditional estimates, such as the 2-7% often cited by textbooks. Campbell recommended the use of achievement score at two years or below level in both reading and math (t=40) as an additional decision in all cases of discrepancy. In addition, the required magnitude of the discrepancy in intrapersonal performance (the six initial rules) could be increased to three or even four years (p.13).

The importance of this study was the careful application of research techniques to a crucial issue in the field of learning disabilities. Refinement and application of research methodology to the problems of definition, prevalence and appropriate programming are urgently needed.

A great many definitions including the Wisconsin definition, go beyond the use of discrepancy criteria and include three common elements, as described by Hammill (1978):

> First, there must be a significant disparity between abilities that the student does well and those he or she does poorly (for example, between reading and speaking ability or between measured intelligence and academic performance). Secondly, this observed disparity must somehow be caused by a disturbance involving some basic psychological process. Finally, the problem cannot be caused directly by such conditions as mental retardation, blindness, or deprivation. This last component in the definition is usually referred to as the exclusion clause. (p. 31)

Wisconsin State Statute-Chapter 115

The Wisconsin Statute, Chapter 115, outlined regulations that met each of the three general components as identified by Hammill (1978).

The child must have:

> ...severe and unique learning problems due to a disorder existing within the child which significantly interferes with the ability to acquire, organize or express information. These problems are manifested in school functioning in an impaired ability to read, write, spell or arithmetically reason or calculate. (p. 48)

The problem was identified as severe, when the child was approximately 50% behind expected achievement in two of the basic areas or in the single area of math. The child needed to score in the average range on an individual intelligence test or there was other evidence of potential for normal functioning. The learning problem could not be the result of any other handicapping condition or of "learning problems resulting from extended absence, continuous inadequate instruction, curriculum planning, or instructional strategies" or "lack of motivation" (p. 50).

Since the learning problem could not be attributed to environmental causes, professional educators needed to be well-versed in the nature of learning. Developmental learning theories such as the Piagetian model, behavioral learning theories, and learning theories on the processing of information such as Kirk's use of Osgood's model of language in the development of the ITPA were valuable resources to analyze the learning style of a learning disabled student.

The IQ of the child, as measured on an individual intelligence test, must be 90 or above, on at least one major scale of the WISC-R, or within 1 SD below the mean on the Stanford-Binet. The inclusion of a specific IQ component of average or above ability has eliminated some of the frustration the diagnostic teams have faced in other states concerning the

placement of students with borderline average intelligence. In the past, the difficult decision to be made was whether the individual qualified under the regulations for mental retardation or under the rule for learning disability. For example, in some states such as Pennsylvania, the IQ range for classification as mentally retarded extend upward to 85.

However, this IQ cutoff has created other problems. In effect, students in the state of Wisconsin whose IQ's fall in the 70-90 range have difficulty qualifying for services for the handicapped, unless they possess one of the rare physiological handicapping conditions (blindness, deafness, physically handicapped, etc.) or qualify as emotionally disturbed. Furthermore, there have been proponents of the theoretical position that a learning disability is a specific behavioral syndrome that can occur irregardless of IQ level (Cruickshank, 1977). While parental acceptance of the LD label may be high because it emphasizes the general intellectual ability of their children, early researchers in the field of brain injury did not place heavy emphasis on an IQ cutoff that could be associated with the handicapping condition.

To the extent that IQ is a generally sound predictor of success in academic subjects, teachers of the learning disabled were relieved to have students who were somewhat more homogeneous than under the informal Wisconsin guidelines available before the publication of the formal regulations in 1977. More research needs to be done as to whether the mildly handicapped (mentally retarded, learning disabled, emotionally disturbed) can be taught successfully using similar special education techniques or whether it is beneficial to use IQ cutoffs for placement into separate

programs (Kaufman & Hallahan, 1976).

Federal Law P.L. 94-142

The Federal Government issued regulations on the criteria for inclusion in a learning disabilities program. (Federal Register, Dec. 29, 1977). Learning disabilities were defined in PL 94-142 as:

> ...a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps, or mental retardation, or emotional disturbance, or of environmental, cultural, or economic disadvantage. (Sec. 121 a. 5 (9).)

There were four major differences between the Wisconsin Statute, Chapter 115, and PL 94-142. First, the Federal regulations did not operationally define a "severe" discrepancy between potential achievement and actual achievement. The Wisconsin statutes required the use of a formula. The use of formulas in general was determined to be an inappropriate way to decide this matter. Secondly, the learning problem needed to be in only one area (reading, writing, arithmetical reasoning or calculations). Spelling was not considered an independent area. Third, there was no specific IQ cutoff other than the cutoff used for mental retardation which was 69 and lower. Finally, the regular classroom teacher must be on the Multidisciplinary Team and classroom observations must be done by the diagnostician.

While the final revision of the Wisconsin regulations is pending,

the need for a relatively clear operational definition at the Federal level is still evident. An example of an operational definition especially designed for adolescents with learning disabilities was proposed by Wiederholt in 1975:

1. Academic achievement in any area at or below second grade.
2. Measured IQ of not less than 85.
3. Hearing and visual acuity within normal limits, after correction.
4. No severe emotional disturbance.
5. No chronic school attendance problems.

These criteria conformed to the general components of learning disabilities definitions except for the clearly stated IQ cutoff and the label of severity placed at a very low level of school performance. By the standards in Wisconsin, many more students can be classified as learning disabilities than the Wiederholt definition would allow, because the students need only be 50% or more below their expected achievement. Even with this definition of "severe" discrepancy, Wisconsin has traditionally stayed within the conservative prevalence rate of 2%.

In a small study of the secondary learning disability students in five districts in Alabama, Grill (1977) found that among 161 students for whom useable data was available, only 45 (28%) met or nearly met the Wiederholt criteria. The author agreed in principle with the Wiederholt criteria. However, he noted that fourth grade achievement levels could be generally accepted as "indication of competence in basic school skills or reading, writing, arithmetic and spelling" (p. 26). Therefore, the

criterion might be changed to a learning deficit as evidenced by academic scores under 4.0. With this change, more students might be considered as meeting the criteria. Among the students classified as learning disabled, but not meeting the criteria, were many students who did not even exhibit the commonly accepted 2 year lag between grade placement and level of achievement in reading and math. These students may have been placed in an elementary program and were making steady progress, but not yet performing up to grade level.

In discussing learning disabilities as a classification label, Adelman (1979) summarized a body of literature on the conceptual problems and criticism surrounding most special education and psychiatric labels. Perhaps the LD classification did "not really capture the essence of a class of phenomena" (p. 60). Was LD more like a genus which encompassed a number of species? Then shouldn't these significant subgroups (species) be identified? Perhaps LD was a particular species. If such, the larger group to which it belonged would have to be identified.

Furthermore, students acquire the LD label through assessment procedures:

> ...that suffer from the variety of traditional reliability and validity problems, such as rater/tester bias, fluctuations in children's performance due to motivation and degree of assimilation of new behaviors and skills, the limited range of behavior which can be sampled because of restrictions imposed by time and instrument availability, etc. (p. 60)

In addition, there was a lack of normative date for making judgments about students "normal" or "abnormal" behavior at the various age levels and in the wide variety of environments the child could be judged a

success or a failure.

These considerations about the label LD have important implications for teacher training. Prospective LD teachers must understand the nature of the labeling process from a philosophical, sociological and political point of view. The school system is a major social institution where the needs of the students are only one factor in decision making. Students in the LD program may resemble more closely a heterogeneous mixture that could come under the genus "underachievers". As such, the administrators may see no reason why the LD teacher cannot teach remedial classes where there are 20-25 students on the caseload. In many school systems, it is difficult for the LD teacher to sit down to review an Individual Educational Plan with a parent and describe the student's program as one that is "appropriate" and under which the student can be expected to make good progress.

Because LD has not yet been firmly established as a "species" with its own definitive characteristics, there are not enough data on how long, how intense and what kind of remedial program is needed to overcome the handicap. Some educators and politicians appear to believe that by merely placing the student under the watchful eye of an LD teacher, the problem is well on its way to being solved.

Summary

Unlike the Federal guidelines, both the Wisconsin and the Wiederholt criteria set rather definite limits on the kind of students a teacher would be asked to teach. Operationally defining the level of intelligence

and the severity of the academic deficits automatically lowers the prevalence rate for learning disabilities. This in turn, affects the number of teachers needed and the scope of learning problems that these teachers will meet in the learning disabilities classroom. The trend, as evidenced by the Federal law, appears to be including more students under the umbrella of learning disabilities programs.

The final outcome of the controversy over the prevalence of learning disabilities will be determined in part by the leadership at the state level. These professionals will help the diagnostic teams to define the concept "severe discrepancy between achievement and intellecutal ability". As the Campbell (1978) study showed, the use of moderate discrepancies within a variety of test scores can result in relatively high prevalence rates (16%).

Characteristics Associated with Learning Disability Adolescents

There has also been a set of commonly held characteristics associated with learning disabilities. The special education teacher should be familiar with these personality variables in order to meet the needs of the students, and be able to explain these characteristics to regular education teachers to assure proper referrals and help them tolerate these behaviors when necessary.

Deshler (1978) described the difficulty in assigning certain kinds of behavioral characteristics (i.e., hyperactivity, perceptual deficits, distractability) to the learning disabled adolescent. To summarize his viewpoint:

1) The presence of any given characteristic or set of characteristics is neither conclusive nor required in determining if a student is learning disabled. All characteristics need not be present to cause a severe learning problem.

2) Students with learning disabilities are not synonomous with the total group of students at the bottom of the learning continuum.

3) It may be assumed that for many learning disabled students, the problem persists beyond the elementary grades, though the behavioral characteristics (expecially those behaviors associated with hyperactivity, perceptual-motor problems) may not persist in the same manner.

Wilcox (1970) summarized the behavioral characteristics for the older student as follows:

hyperactivity--The teenaged student responds to a number of influences (such as discipline and personal dignity) and controls the urge to engage in constant movement by restricting movement to tapping of fingers and feet, grimacing, or tics.

perceptual-motor impairments--Maturation is said to cause a form of compensation for disability in the sense of time, differentiation of size, and distance.

emotional liability--The adolescent persists in overreacting to stimuli. Although less aggressive, less restless, and less variable in mood, they are still unaware of their impact on others.

attention--Although attention span lengthens, the student is unable to benefit from lecture periods and foreign language classes. The students are divided into "goof-offs" who distract others, and the anxiety-ridden student who freezes and cannot concentrate for long.

impulsivity--Overreaction to stimuli persists with manifestations recognized in behavior such as the "loudest clapper" or the "uncontrolled sneezer".

memory and thinking--This may be the most marked and easily recognizable trait in adolescence. The student cannot think things through to completion, is disorganized in study routines and general school work, and should have a special study routine and memory-training course.

specific learning disabilities--Specific language disorders are evident in reading, writing, and spelling; and it is recommended that the student should be given help in spelling because this may be the most frequent, residual difficulty after reading and writing skills are established.

equivocal neurological signs and EEG irregularities--Handedness should be established by adolescence and difficulties are usually noticed only in physical education activities. (pp. 7-9)

Marsh, Gearheart and Gearheart (1978) summarized a wide variety of research on the characteristics associated with learning disabilities present at the adolescent level. The studies discussed one or more of the variables described by Wilcox. The two points of view identified in the literature were:

1. "...many adolescents seem to overcome learning disabilities as a result of maturation of the central nervous system."

2. ...learning disabled adolescents exhibit vestigal remains of characteristics recognized in childhood that can be attributed to central nervous system damage or dysfunction that does not appreciable improve. (p. 20)

Students of the field of learning disabilities should be knowledgeable about both viewpoints to be more effective in their roles as educational diagnostician and educational planner, consultant and teacher.

The Campbell (1978) study on the definition and prevalence of learning disabilities among adolescent boys made use of a behavioral checklist listing many of these characteristics in borderline cases where the required number of discrepancies could not be found. His format is reproduced on the following page.

Table I

WISC Observations	Pronounced Characteristic	Occasionally Observed Characteristic	Not Observed
Block designs--perseverating in patterns	☐	☐	☐
Inability to perform on sequence test	☐	☐	☐
Inability to complete any math problem	☐	☐	☐
Inability to complete puzzles	☐	☐	☐

Observations	Pronounced Characteristic	Occasionally Observed Characteristic	Not Observed
Difficulty following oral directions	☐	☐	☐
Low frustration tolerance--early onset of fidgeting, inattentiveness	☐	☐	☐
Guarded response style (may be withdrawal, hostile response, evasive response)	☐	☐	☐
Repeated verbalization of inability to learn	☐	☐	☐
Gross motor difficulty--unusual awkwardness	☐	☐	☐
Fine motor difficulty--difficulty with handling pencil or similar tasks	☐	☐	☐
Manifestation of vision problems: i.e., squinting, holding books very closely, rotation of paper	☐	☐	☐
Manifestation of hearing problems: i.e., favoring one ear, focusing on speakers lips	☐	☐	☐
Continuous rocking, tapping, drumming	☐	☐	☐
Difficulty in oral expression--disjunctive sentences, inconsistent grammatical errors, long latency for common words	☐	☐	☐
Distractability	☐	☐	☐

However, Hammill (in Mann, et. al., 1978) described research that supported his conclusion that the majority of students in learning disability classes:

> ...evidence an almost total absence of hyperactivity, distractibility, linguistic, or specific conceptualization problems...the majority of those enrolled are either dull-normal pupils achieving at expected levels or children with comparatively high IQ's who are simply underachieving. ($_p$. 38)

It was Hammill's position that there was a "liberal interpretation" of learning disabilities which ignored both the discrepancy data and the use of commonly accepted behavioral characteristics as indicators of deficits in the underlying psychological processes. The "liberal interpretation" used one basic criterion - "low achievement in school work" (p. 38).

Self-Concept and Locus of Control

Rather than study specific perceptual, motor, and cognitive characteristics, recent studies have focused upon the influence of attitudes upon achievement. Bryan (1978) reviewed recent literature in self-concept, locus of control and attribution theory as they may relate to learning disabled children. These constructs have evolved from social learning theory (Rotter, 1975), a theory of how choices are made by individuals from the variety of potential behaviors available to them. In contrast to Skinner's work on behavior modification, in social learning theory the reinforcement is effective only when the person perceives that there is a causal link between behavior, reinforcement, and goal attainment (Phares, 1976). Attribution researchers study particular

kinds of beliefs and their effect on the person's actions. One particularly powerful belief system that has been found to predict children's academic success has been called "locus of control". As Bryan (1978) explained:

> It is postulated that people's attributions can be classified as either internal or external. Internal locus of control means that a person attributes outcomes, whether positive or negative, to the self. Internal locus of control refers to the belief that success and failure are the result of effort and/or ability. External types believe that luck or other people are responsible for their success and failure. (p. 2)

Bryan questioned whether the definition of the learning disabled child as a person with normal intelligence, may contribute to a lack of acceptance of LD learning problems on the part of regular education teachers. She wrote:

> Teachers, believing learning disabled children to have normal ability, may interpret their failure to perform as a lack of effort. Ability plus no effort appears to be a combination of "traits" harshly judged and treated by teachers. (p. 4)

This was explained in recent studies by results that indicated that teachers were likely to take credit for their successes in teaching, but interpret student failure as a characteristic of the student.

Bryan emphasized designing interventions that avoided reinforcing "learned helplessness" behaviors, and that took into account the attributes of parents, teachers and our own explanations for LD children's successes and failures. Rather than relying on unconditional love, praising inadequate work, and error-free learning, the LD teacher would concentrate on involving the student in realistic goal setting; planning; taking personal responsibility for success and failure; persevering when

confronted by a difficult task and developing self-confidence. These are especially important for the older LD child, and affect the development of secondary LD teacher training programs.

Programming: Two Models of Service

In this section, two models of service for secondary LD students are reviewed. These programs have received national recognition and have been reported in some detail in the literature. In addition, the structure of their respective secondary programming is practical for the kinds of programs operating in Wisconsin. Teacher training in general, and the development of the Cardinal Stritch College curriculum in particular, is indebted to the forthright presentation of the Montgomery County Learning Disabilities Program - Libby Goodman, Director; and the Pittsburgh Child Service Demonstration Center - Naomi Zigmond, Director. A more complete account of the philosophy and practice of the Goodman project can be found in Learning Disabilities in the Secondary School: Issues and Practices by Goodman and Mann (1976). The Zigmond project is described in detail in the Winter and Fall issues of Learning Disabilities Quarterly, 1978.

The Montgomery County Learning Disabilities Program

The purpose of this project was to "develop an intensive remedial academic program for severely educationally deficient (and learning disabled) junior and senior high school students" (Goodman, 1978, p. 253). The goal was to bring these students up to full sixth grade competency so they could be successfully re-integrated into the regular

secondary program. The students were selected by the following criteria:

1) a full scale IQ of 90 or better on an individually administered intelligence test;

2) a lag of two or more years below grade placement (and below 7th grade) in basic math and language skills;

3) freedom from severe emotional and behavioral disorders;

4) demonstration of severe and specific process or cognitive disorders;

5) a willingness to participate in the program. (p. 253-254)

Slow learners were screened out on the grounds that their education was the responsibility of regular education.

The curriculum consisted of the use of available materials, and the implementation of the concept of mastery learning by varying the rate and amount of instruction as the student proceeded through the stardard curriculum of grades 1-6. As Goodman (1978) wrote:

> "Special educators should focus their attention on those areas to which their training and background apply - fundamental skills." (p. 254)

The learning disabilities program of the Montgomery County Intermediate limit took exception to both mainstreaming and the diagnostic-prescriptive teaching model. Instead, for severely disabled students, a self-contained academic program was considered the most viable option. While the truly individualized approach to instruction, where there was a good match between learner and method, may be the ideal programming approach of special education, empirical evidence (Bracht, 1970; Ysseldyke, 1973) did not support a practical way of implementing it. Instead, the mastery learning model was found to be compatible with the

curricular emphasis of their basic educational model. Significant gains in reading (64% made a one year gain, 35% made two or more years gain) and math (52% gained one year, 26% gained two years or more) levels were reported (Goodman, 1978, pp. 255-256).

The Pittsburgh Child Service Demonstration Center

The Pittsburgh project offered a resource room program for learning disabled urban youths in grades six through twelve. The two major goals were the remediation of basic academic and social skills, and daily maintenance in the mainstream. Each resource room (learning lab) served up to twenty students and was staffed by two LD teachers, a lab teacher and a consultant teacher. The lab teacher provided direct remedial services to students who were seen for one hour, or at most, two hours per day.

A comprehensive in-service program was conducted for the regular school staff before the program was implemented. The referral system relied heavily on the judgments of the regular education staff, who were to identify students with severe underachievement. There were students who could be expected to have difficulty passing their courses, or who had behavioral or emotional difficulties relating to their lack of basic skills.

Criteria for inclusion in the resource program were an IQ of 80 or above, a discrepancy of 50% between expected achievement and actual achievement (as calculated by a formula) in one or more academic areas, and the exclusion of students whose emotional problems took precedence

over their learning problems.

The lab teacher was trained to assess what to teach through the use of formal and informal assessment procedures. The academic areas to be remediated were reading (decoding, sight vocabulary and comprehension), mathematics (computation skills, applications, and problem solving) and written language (spelling and composition). The lab teacher was also trained to take into consideration how to teach a particular student. Areas assessed informally were interests, motivation, attention span and the ability to work independently.

The lab itself was stocked with a wide variety of expensive learning devices, commercial materials, and motivating tools such as comic books and driver's education manuals. This program was a federally funded demonstration project and, as such, had access to funds to equip the labs in a more extensive fashion than the allocations received by learning disabilities teachers in general.

The lab teacher saw the learning process as occurring in three steps: Presentation of new material as relevant to a particular student with direct instruction using cue words and mnemonic devices; Practice by the student of the particular skill alone and in applied situations; and Mastery of this skill and its applications without teacher direction.

Once a week, group discussions were held to improve the students' abilities to use teacher pleasing behaviors (getting to class on time, good eye contact, having the necessary supplies, etc.), test taking and other matters pertaining to getting along in the building. The career education component utilized participation in the comprehensive program

provided to all students in the Pittsburgh School System. Parent education and involvement was also an integral part of this model. Early testing results indicated mean increases in achievement of over one year that were maintained upon retesting over the summer break (Zigmond, 1978).

The second LD teacher in the building worked as a consultant to mainstream teachers. This was considered a full-time job. An eight step plan to achieve effective co-operation and implementation of the resource program was outlined by Laurie, Buchwach, Silverman and Zigmond (1978). The goal was to help the mainstream teachers "recognize that they control the learning environment; that they are responsible when students fail in the mainstream; and that their classroom content of course requirements can be restructured to reach more of their students" (p. 64). The authors outlined eight steps to achieve these goals. Many important ideas were presented that are worthy of study. For example, in Step IV, the consulting teacher was warned not to tell clients what their problems were and then hand them a specific set of solutions. Consulting involved brainstorming in order to come up with workable alternatives that did not require the creation of a special, individualized curriculum for the LD student. While there were many possible alternatives, the ones chosen would vary according to the willingness of the classroom teacher to try new strategies. The table, reproduced on the following page, gives the reader an overview of the nature of these alternatives.

REALISTIC ALTERNATIVES FOR A MAINSTREAM TEACHER

Classroom Organization

Vary Grouping Arrangements

- -large group instruction
- -small group instruction
- -individual instruction
- -peer tutoring
- -independent self-instructional activities
- -learning centers

Vary Methods of Instruction

- -teacher directed
- -student directed

Classroom Management

Vary Grading System

- -homework
- -tests
- -class discussion
- -special projects

Vary Reinforcement System

- -praise
- -notes sent home
- -grades
- -free time
- -special activity
- -tangibles
- -progress charts

Vary Rules

- -differentiated for some students
- -explicit/implicit

Methods of Presentation

Vary Content

- -amount to be learned
- -time to learn new information
- -conceptual level

Vary General Structure

- -advanced organizers
- -previewing questions
- -cues, mneumonic devices
- -provide immediate feedback
- -involve students actively

Vary Type

- -verbal/lecture, discussion
- -written/texts, worksheets
- -demonstration
- -audio/visuals
- -tape recorders
- -filmstrips
- -movies
- -opaque projectors
- -transparencies

Methods of Practice

Vary General Structure

- -amount to be practiced
- -time for practice
- -group/individual
- -teacher-directed/ independent
- -items ranging from easy to difficult

Vary Level of Response

- -copying
- -recognition
- -recall with cues
- -recall without cues

Vary Type of Materials

- -worksheets
- -texts
- -audio/visual equipment

Methods of Testing

Vary Type

- -verbal
- -written
- -demonstration

Vary General Structure

- -group/individual
- -amount to be tested
- -time for completion

Vary Level of Response

- -recognition
- -recall with cues
- -recall

In summary, Chapter Two presented an overview of the literature concerning the variety of definitions and the identification of LD adolescents. In addition, two highly publicized models of programming for LD adolescents were reviewed. With this brief introduction prospective LD teachers may be able to understand more clearly the complex nature of labeling and programming, especially as it affects teachers in Wisconsin. In the final chapter, the specific needs of secondary LD teachers in the vital area of curriculum will be discussed.

CHAPTER THREE

The Preparation of a Secondary Learning Disabilities Teacher

As outlined earlier, the behavioral objectives for the secondary learning disabilities program were assigned to particular courses. There is a wealth of material to be covered in each course that will not be outlined in this section. Instead, this section will focus on those components of teacher training related to helping a former science teacher, gym teacher, shop teacher or any certified teacher acquire a basic set of techniques and an overview of the hierarchy of skills needed to teach the fundamentals of reading, math, spelling, handwriting, and written composition. So often teachers have said, "I took a curriculum course, but I never learned how to teach it!"

Strategies and materials are now in print to aid the secondary LD teacher in developing a good compensatory program when the students are mildly handicapped (Alley & Deshler, 1979). It is expected that graduate students can read and apply their principles, or tutor students in mainstream subjects, or order collections or motivating materials and machines.

When a school system hires a special educator such as a secondary LD teacher they have a right to expect that the special educator can teach a student who is completely or functionally illiterate. Our graduates encounter these students in a wide variety of school settings, residential treatment centers and in training programs for unemployed adults. In a survey of the current secondary LD population across the

country, Deshler, Lowrey, and Alley (1979) reported that teachers indicated that 89 percent of the LD population fell in the mild to moderate category, while 11 percent were in the severe category. Students falling in the mild to moderate category were assumed to be good candidates for the learning strategies approach. (These students should possess reading skills at 4.0 or above, have average intellectual potential and be capable of symbolic or abstract learning.) If the data are confirmed and the vast majority of LD adolescents have both the intellectual capacity, cognitive ability and basic literacy skills, then one component of teacher training should certainly be the learning strategies or compensatory approach. Fortunately the textbook, Teaching the Learning Disabled Adolescent: Strategies and Methods (Alley & Deshler, 1979) is an excellent guide to this model of programming. Graduates of Cardinal Stritch College are encouraged to apply this model along with the strategies for working with the mainstream teachers as it was reported in the Pittsburgh project (Laurie, Buchwach, Silverman & Zigmond, 1978).

There remains the question of teacher training for those educators working with the other 11 percent who are severely handicapped, or the additional numbers of students who do not fit the description of the candidate for the learning strategies approach. It is our position that a special education teacher should be well versed in the techniques and materials used to aid severely handicapped learners attain literacy skills. In the process of learning to teach the basics, the prospective secondary LD teacher will acquire a wide variety of techniques

that may be applicable to implementing a program for the less severely handicapped student.

A good fund of knowledge concerning curriculum is a particularly weak area that teacher training institutions must address systematically throughout the sequence of coursework. Our teachers bring with them a high level of interpersonal skills and can assimilate information on identification, diagnostic testing, the law, and the organization of a special education classroom. Most of these teachers have a wealth of experience in relating to adolescents, their parents and other professional educators. However, it is a long process of study to understand how to help the handicapped student who cannot acquire basic skills in the areas of reading, mathematics, writing composition, thinking, speaking and listening, and social interaction by ordinary methods of instruction. The coursework must be demonstrated, modeled, rehearsed, and elaborated upon throughout the training sequence. Teachers can acquire a firm foundation in special education techniques that may serve as the basis for continuing education throughout their careers. (There is a crucial need to update the skills of secondary LD teachers currently employed in the field. New information is disseminated quite slowly at this time in the State of Wisconsin.)

In addition to learning many new skills, regular education teachers returning for a license in special education may have to replace skills that may have been effective in the regular classroom with more refined techniques. Teachers may have been successful with a textbook approach, while many texts have poor organization and teach or review

skills in a haphazard fashion. For example, in primary math texts it is not uncommon to cover "adding digits 1-5, subtracting digits 1-5, adding digits 6-10" and so on with lessons on geometry, measurement, and other concepts mixed in. Handicapped students usually need intensive help in a basic skill such as adding without splintering the skill by a mix of concepts.

Regular educators can use a wide variety of materials as motivators. The special educator must monitor their use of materials carefully and supplement them with direct instruction, concrete learning aids and individually tailored work. A reading program that consists of a different skill book (magazine, spelling program) for each day of the week may keep the student busy, but gains may be low.

Mastery of a skill for a handicapped student is not achieved by attaining 100% on a worksheet. The intensive "pre-testing, teaching, post-testing for a specific objective" approach to learning is not a method automatically applied after it has been covered in a curriculum class.

Teachers, in general, need to be aware of many common mistakes that reduce their effectiveness. In the area of questioning strategies, Hoover (1976) showed that teachers were ineffective when they did one of the following:

1. Repeats the question. This reinforces students' inattention.
2. Answers his/her own questions. Students see no need in answering or volunteering.
3. Repeats the student's response. This permits students to provide incomplete answers.

4. Does not listen or maintain with the responder. This also reinforces (1), (2), and (3). (p.II - 72 73)

It is easy to fall into these questioning patterns when working with handicapped students who may have expressive language problems, abstract thinking difficulties, or a lethargic approach to schoolwork.

In summary, the prospective secondary LD teacher will benefit from a teacher training program that stresses the teaching of basic skills, and acquiring a fund of specialized techniques that will help handicapped students make good progress. These areas are crucial to the successful training of previously licensed regular education secondary teachers.

Analysis of Instruction

In addition to exposure to the diagnostic testing-teaching approach, students learn to view a learning task as occurring on one of three levels:

acquisition --- the task is new material or needs to be introduced as new material;

proficiency --- the student can perform the task and needs additional practice to attain mastery;

maintenance --- the student uses the skill in everyday living and needs only occasional review.

For example, many secondary students have been exposed to rules for punctuation of written work. However, they may be at the acquisition stage where intensive direct instruction is still needed. At the proficiency level, they need to practice the skills in their own writing. The specific skill may be highlighted, perhaps by the use of color coding the punctuation in their own sentences or stories. The maintenance level is not achieved until the skill of punctuation occurs

regularly in their own writing, with only occasional errors in need of review.

While there are a myriad of methods for analysis of instruction, it is helpful to begin with five basic variables:

demonstration --- showing a student how to perform a task before he attempts it himself;

modeling --- providing a student with an example of a completed task;

molding --- physically guiding the student's movements;

drill --- repetition of a movement many times in succession, often with a mastery criterion: one letter per second, 100 facts in three minutes;

mixed practice --- completion of a series of different tasks during one single work session. (Pasanella & Bolkmor, 1977, pp. 181-182)

These types of instruction can be linked with the level of skill development. For example: demonstration, modeling, and molding may be required at the acquisition level; drill is appropriate for the proficiency level; and mixed practice belongs at the later stages of proficiency or the maintenance level. The amount of time expended on a particular skill may also be linked to the level of skill development, such as daily or weekly instruction, or minutes per session.

In each area of the curriculum it is important to assume that the graduate students are not familiar with the generally accepted hierarchy of skills taught in the primary grades. For example, while not every skill covered in developmental reading is important for acquisition of reading literacy, secondary teachers do not know where a particular skill fits into the total picture, if it is essential for a particular

skill fits into the total picture, if it is essential for a particular student, or a task analysis of how to teach it efficiently. There are some helpful outlines of basic skill hierarchies that are more appropriate to the training of a secondary special educator that will be discussed later.

Once an essential task has been identified for a particular student through pre-testing and the task analysis is written or located from previous study, the teacher must be aware of the crucial variable(s) involved in the task so that this variable(s) can be emphasized by the use of well chosen cue words and other mediating devices (mnemonics, visual imagery, association, clustering, and so on).

For example, Cawley, Fitzmaurice, Shaw, Kahn, and Bates (1978) gave an example of ineffective teaching in math. The student had learned the phrase "zeros don't make a difference so you bring the other number down". It was applied to the problem $\begin{array}{r} 398 \\ -100 \\ \hline 298 \end{array}$, as well as to the problem $\begin{array}{r} 300. \\ -198 \\ \hline 298 \end{array}$ In this particular example, the crucial variable is the role of the number zero in the general concept of "place value". Knowledge of place value in the base ten number system is essential to the correct reading and comprehension of numbers. It can be taught to students by using money and the abacus as concrete learning aids. The cue words "zeros don't make a difference" are certainly inappropriate as a learning aid.

In summary, the secondary LD teacher must account for a number of

variables in the teaching-learning process. They might be represented by the model shown below.

THE ANALYSIS OF INSTRUCTION

1. Level of skill development
2. Instructional strategy(ies)
3. Amount of instructional time

The Curricular Component	The Student
1. Developmental sequence of basic skills	1. Age of student
2. Special education adaption of a particular sequence	2. General learning style (auditory, visual, motor assets and deficits)
3. Task analysis of skills in the sequence	3. General abilities, interests and motivation
4. Identification of the crucial variable(s) in a particular skill	4. Present level of achievement for a particular skill (pre-testing may be needed)
5. Mediating devices to improve learning and retention	5. Mediating devices that work well for a particular student

SUGGESTIONS AND RESOURCES FOR THE TEACHER/ TRAINER AND THE SECONDARY LD TEACHER

AREA: Reading

Philosophy Statement Concerning the Aim of Instruction:

The emphasis of most reading authorities and LD experts is on deriving meaning from reading (Stauffer, 1975; Weiderholt, 1978). However, teachers must have the skills to implement a comprehensive reading program (including phonics and structural analysis) for students who are seriously handicapped by an inability to read at a level commensurate with functional literacy.

Sources for Outlines of the Hierarchy of Skills:

1. Blake, The Teaching of the Retarded (1974), for an outline of phonics and structural analysis.
2. Sanders, Classroom Questions (1966), for a simplified outline of the levels of comprehension.

References for Specific Skill Development:

1. Pearson & Johnson (1978), Teaching Reading Vocabulary and Teaching Reading Comprehension.
2. Stauffer (1975), Directing the Reading-Thinking Process.
3. West (1978), Reading in the Content Areas.
4. Alley & Deshler (1979), Teaching the LD Adolescent: Strategies and Methods.

Basic Techniques for Teachers:

1. Direct instruction method as practiced in the Corrective Reading Program (Englemann, 1974), and Glass Perceptual Conditioning Analysis (1971).
2. The use of a basal series with simplified phonic instruction.
3. Directed Reading-Thinking Activity (DRTA) by Stauffer (1975).
4. The Fernald (1943) approach.
5. The ReQuest questioning procedure (Hori, 1977), as described by Alley & Deshler (1979).

AREA: Mathematics

Philosophy Statement Concerning the Aim of Instruction:

Secondary LD students should master basic computational skills required for problem solving as a consumer and a citizen.

Accuracy of computation on difficult problems (i.e., long division with the remainder expressed in decimals) should be minimized in favor of strategies for correct mathematical reasoning. A calculator is a useful tool when the student knows how to solve a mathematical problem. Fractions, measurement, and some geometry are needed for success in vocational coursework and everyday living. Teachers returning to graduate school for LD training usually need as much training in this subject area as in the language arts, though they may assume they are already familiar with the hierarchy of skills and techniques needed for successful teaching of mathematics.

Sources for Outlines of the Hierarchy of Skills

1. Englemann (1969), Preventing Failure in the Primary Grades. This outline covers general mathematical concepts through fractions.
2. Self-generated hierarchies for consumer math (see sample on page 67).

References for Specific Skill Development:

1. Cawley et al. (1978), LD Quarterly, "Mathematics and LD Youth: The Upper Grade Levels".
2. Cawley et al. (Spring, 1979), LD Quarterly, "Math Word Problems: Suggestions for LD Students".
3. Cawley, Fitzmaurice & Show (in press), The learning handicapped child and mathematics.
4. Alley & Deshler (1979), Teaching the LD Adolescent: Strategies and Methods.

Basic Techniques for Teachers:

1. The use of concrete aids to demonstrate concepts. These include unifix cubes, Cuisenaire rods, abacus, bath tiles, scales, coins, graphs, and other pictorial representations.
2. The use of Cawley's methods for teaching concepts and solving word problems.
3. The "count by a member" method for teaching multiplication tables, suplemented by finger methods.
4. Aids to developing skills in the essential areas of fractions, measurement, and consumer math.

SAMPLE HIERARCHY OF SKILLS FOR CONSUMER MATH

I. Money

A. Coin identification

1. The name of each coin
2. The amount each coin is worth

B. Equivalency

1. The number of pennies, nickels, dimes, quarters, and fifty-cent pieces in each coin up to one dollar
2. Other combination

II. Making Change

A. Using money to pay for one item

1. Pay for one item with the correct coins when the cost is under one dollar
2. Pay for one item with the correct coins when the cost is over one dollar.

3. Pay for one item, as in number 1, with the least number of coins
4. Pay for one item, as in number 2, with the least number of coins
5. If a bill is a certain amount (x) and the student gives the clerk a certain amount (y), how much will the student receive in change?
6. Using the format of number 5, identify the least number of coins the student can receive as change

B. Estimating
1. Given an item or bill, what money should be given to the clerk?
2. Given two items, what is the approximate bill? What money should be given to the clerk?

C. Using money to pay for two or more items
1. Given two items, compute the total bill
2. Compute a bill from a shopping list, such as one can of peas, two cans of corn when peas are 39¢ a can and corn is 32¢ a can; 2# of meat at 79¢ a pound, and so forth
3. Compute a bill, as in number 2, and subtract from a given amount, i.e., $5.00
4. Compute the cost of items when they are two for a dollar, three for a dollar, and so on
5. Compute 1/2 off, 1/4 off, 1/3 off
6. Compute 50% off, 25% off, 33% off

D. Sales tax

1. Identify taxable items
2. Compute sales tax using a tax table and add this amount to original cost
3. Estimate the tax for a total bill in order to give the clerk an appropriate amount of money, or calculate if the expenditure is within the amount of money available

III. Comparison Shopping

A. Comparing identical items at two or more locations to determine lowest price

1. Locate sources of information on prices
2. Compute the better price by finding the difference in price between one item at two locations
3. From a shopping list, determine the best location to buy many items

B. Choosing the best buy from comparable products that are not identical (i.e., a car)

1. Locating appropriate sources of information on a particular item
2. Evaluating subjective needs to determine the most appropriate buy for a particular individual

(This outline is a sample hierarchy for some of the basic skills needed in consumer math. Teachers may break down particular skills into finer subskills when needed. As with all hierarchies, this information does not explain how to teach a particular skill.

Further units include: planning and living on a realistic budget; the use of credit; the use of checking and savings accounts; taxes and other deductions associated with payroll checks; and specific information on insurance, major purchases, and warranties.)

AREA: Written Composition

Philosophy Statement Concerning the Aim of Instruction:

Writing is primarily a semantic and cognitive process (Laurence, 1972) so that the emphasis is upon teaching the LD student to translate thought into writing. The mechanical aspects of writing are amenable to improvement when direct instruction is given. Handwriting may need to be taught separately, or a typewriter should be available.

Sources for Outlines of the Hierarchy of Skills:

1. Kephart (1960), The Slow Learner in the Classroom, for an outline of the pre-handwriting skills.
2. Alley & Deshler (1979), Teaching the LD Adolescent: Learning Strategies, for many sample hierarchies in written composition, note taking, and test taking skills.

References for Specific Skill Development:

1. Bailey (1975), Academic Activities for the LD Adolescent.
2. Strong (1973), Sentence Combining.
3. D'Nealian Approach to Handwriting (Scott Foresman, 1978).

Basic Techniques for Teachers

1. The use of a writing notebook for freewriting activities (Elbow, 1973).

2. Materials and methods for direct instruction in the mechanics and the improvement of the content of writing.
3. The use of the D'Nealian Approach to handwriting.
4. The relationship of spelling errors to written composition instruction.

AREA: Spelling

Philosophy Statement Concerning the Aim of Instruction:

Spelling is considered as a separate subject area from written composition that should be taught on a regular basis. Inaccurate spelling is a detriment for any individual. Many LD students make spelling errors due to a lack of appropriate instruction, and improve greatly when the skill is taught and emphasized in daily work. Spelling is a process of revisualization of letters in the correct sequence. Phonics and structural analysis skills are helpful for those words that follow phonic rules.

References for Specific Skill Development:

1. AVKO Sequential Spelling Program.
2. Turnbull & Schulz (1979), Mainstreaming Handicapped Students: A Guide for the Classroom Teacher.
3. Glass Perceptual Conditioning Analysis (1971).

Basic Techniques for Teachers:

1. The use of spelling programs available for secondary students.
2. The use of a multisensory approach. ((Say the word by the letters or sounds, trace the word, draw a picture, manipulate letter tiles, match identical words, missing letter puzzles,

crossword puzzles, close your eyes and say it, write it (or say it) from short term memory, write it (or say it) from long term memory)).

3. The use of spelling dictionaries.
4. Mediating devices for spelling demons.

AREA: Career Awareness-Vocational Education

Philosophy Statement Concerning the Aim of Instruction:

Career awareness-vocational education is a vital component of the entire curriculum. It focuses on wide variety of roles that the student will play in life -- as a producer, consumer, worker, citizen, family member, and social-political human being. "Statement of Position of the U.S. Office of Education on The Appropriate Vocational Education" (April, 1978) identified a major problem concerning the limited access handicapped youth have to the vocational education provided for regular education students. It was their position that "an appropriate comprehensive vocational education be available and accessible to every handicapped student" (p.17). Secondary LD teachers must monitor their students' progress in this area and develop appropriate objectives on the Individual Educational Plan. Regular education resources should be utilized whenever possible.

Sources for Outlines of the Hierarchy of Skills:

1. Brolin (1976), twenty-two basic competencies in career awareness-vocational education.
2. Local school district checklists.

References for Specific Skill Development:

1. Phelps and Lutz (1977), Career Exploration and Preparation for the Special Needs Learner.
2. Weisgerber (Ed.) (1978), Vocational Education: Teaching the Handicapped in Regular Classes.
3. Employability Skills Program - U. of Wisconsin-Madison, Vocational Studies Center.

Basic Techniques for Teachers:

1. Knowledge of the components of the career awareness-vocational education continuum, and how these components are taught in the regular school curriculum.
2. The use of an appropriate checklist, including the development of vocational education objectives on the IEP.
3. Locating appropriate school and community resources.
4. Communicating with parents and students concerning specific career education objectives.

1977

CARDINAL STRITCH COLLEGE
Milwaukee, Wisconsin 53217

GRADUATE DIVISION

SPECIAL EDUCATION -- LEARNING DISABILITIES (Secondary)

Admitted _____ Student _____
GPA _____ Address _____
Has certification: Yes ___ Date _____ _____ Zip _____
Phone _____

MAJOR FIELD: (19 credits required for certification; three to six decided with advisor to enhance competency of individual students)

	COURSE	CREDITS	DATE/GRADE
*SEd 521	Learning Disabilities in Adolescence	3	
*SEd 522	Language Disorders	3	
*SEd 523B	Educational Diagnosis	3	
*SEd 526B	Seminar in Learning Disabilities	2	
*SEd 527	Secondary Methods and Curriculum in L.D.	3	
*SEd 528	Secondary Practicum: LD	3	
*SEd 537	Issues in Special Education	2	
Rd 512B	Curriculum and Instruction in Reading 7-12	3	
Rd 513	Reading Disability: Diagnosis and Correction	3	
	TOTAL		

PSYCHOLOGICAL FOUNDATIONS: (seven credits required for certification; two or three decided with advisor to enhance competency of individual students)

*Ps 503	Psychology of Exceptional Children	3	
*Ps 507	Behavior Management	2	
*Ps 549	Individual and Family Counseling	2	
Ps 504	Personal Adjustment and Mental Health	2	
Ps 506	Psychology of the Emotionally Disturbed	2	
Ps 508	Adolescent Psychology	2	
Ps 510	Theories of Personality	2	
Ps 530	Interpretation of Psychological Tests	2	
	TOTAL		

RESEARCH: STATISTICS (eight or nine credits; Option A or B)

*Ed 521	Educational Statistics	2	
*Ed 550	Educational Research	1	
SEd 551	Option A: Thesis	6	
SEd 554	Option B: Research Seminar with Paper	4	
SEd 556	Independent Study	1 or 2	
	TOTAL		

80

*Required Courses
(26 credits required for certification; 30 credits minimum required for M.A.)

PRE-REQUISITE COURSES

TESTS AND MEASUREMENTS

Apply knowledge of the basic tenets of measurement and statics (reliability, validity, norms, criterion reference testing) to the realistic use of formal assessment instruments.

NATURE OF EXCEPTIONAL CHILDREN

1. Outline the historical development of the discipline of special education.

2. Relate the historical development of the law as it relates to L.D. students.

TEACHING OF READING

Identify the sequence of developmental reading and strategies employed for students with normal learning style.

ADOLESCENT PSYCHOLOGY

Discuss the normal developmental psychological growth of adolescents.

SEd 521 LEARNING DISABILITIES IN ADOLESCENCE

1. Describe their own philosophy on educating special children, including why they believe in their pupils and their ability to learn and progress.

2. List and explain the general objectives for the teacher of the adolescent L.D. student as outlined for the secondary program.

3. Evaluate (his) her own needs so that the L.D. adolescent student might be served in a better way.

4. Define the concept of learning disabilities, including the accepted definition used in Federal guidelines, Chapter 115, and the operational definitions under evaluation by DPI and the major professional organizations.

5. Outline the historical development of the discipline of learning disabilities.

6. Outline the positions of the major theorists in the field of learning disabilities.

7. Identify the general characteristics associated with adolescent students who have learning disabilities.

8. List and explain the general educational goals for the adolescent student.

9. Observe model L.D. programs operating at the Jr.-Sr. high school level in order to provide models of excellence.

10. Recognize the variables identified as part of specific learning styles and how they affect prescriptions for professionals and parents.

11. Integrate the teacher's philosophical background with the needs of adolescents to develop effective classroom organization.

SEd 523b EDUCATIONAL DIAGNOSIS

1. Utilize diagnostic observation, including keeping anecdotal records (and structuring tasks) to discover pertinent information about a child's learning style.

2. Utilize formal and informal assessment instruments, both at the level of administration and interpretation.

3. Utilize pre-vocational and vocational assessment instruments where needed to provide information to the student and his parents.

4. Write asset-deficit summaries of a child's strength and weakness in process, product, and behavioral areas.

5. Write prescriptions for sequential teaching and/or activities that the L.D. teacher, the regular teacher, parents, and other specialists can use.

6. Tests administered include:
   a. Test of Visual-Motor Integration -- Beery
   b. Wide Range Achievement Test
   c. Key Math Diagnostic Test
   d. Peabody Individual Achievement Test
   e. Detroit Test of Learning Aptitude
   f. Spache Diagnostic Reading Test
   g. Woodcock Reading Test
   h. Slosson Intelligence Test
   i. Screening Prevocation Inventory Battery -- SPIB
   j. Kuder Vocational Preference Test
   k. The Test of Reading Comprehension (TORC)

SEd 527 SECONDARY CURRICULUM AND METHODS IN L.D.

1. Relate the sequence and scope of the skills and concepts in reading, mathematics, spelling, handwriting and composition (written and oral).

2. Discuss the general scope and sequence used in teaching other content areas.

3. Apply task analysis to every learning opportunity.

4. Choose appropriate materials to match the development level of the student.

5. Utilize as many techniques and methods as possible, including effective classroom organization, learning centers, games, visual and auditory prompts and so forth.

6. Operate technical equipment and use a variety of media to facilitate learning.

7. Be proficient at testing the readability of textbooks, be able to modify the high school curriculum where necessary to accommodate the learning disabled student.

8. Write clear lesson plans that include: behavioral objectives appropriate to the student's academic needs, learning style, and the sequence of skills to be taught; age appropriate materials and procedures that employ a wide variety of motivating strategies; accurate evaluation of whether the objectives were met, including evidence of pre- and post-testing for an objective.

9. Develop a profile from a set of M-Team assessments to plan long and short range goals for the students for one class period.

10. Write an Individual Education Plan from a case outlined in the course.

11. Describe the methods used to monitor the plans developed in the Individual Educational Plan.

12. Identify the career options available to the high school student, including higher education, apprenticeships, technical training and work-study, that could help the student decide on appropriate career goals.

SEd 528 SECONDARY PRACTICUM: L.D.

1. Utilize techniques of encouragement to facilitate development a healthy self-concept in young adults.

2. Utilize diagnostic information from the process of teaching, testing, and reteaching.

3. Write asset-deficit summaries of a child's strengths and weaknesses in process, product, and behavioral areas.

4. Write prescriptions for sequential teaching and/or activities that regular classroom teachers, parents, and other specialists can use.

5. Write clear lesson plans that include: behavioral objectives appropriate to the student's academic needs, learning style, and the sequence of skills to be taught; age appropriate materials and procedures that employ a wide variety of motivating strategies; accurate evaluation of whether the objectives were met, including evidence of pre-and post-testing for an objective.

6. Demonstrate a high level of teaching ability in both individual and group situations, including all the skills covered in SEd 527, the ability to be flexible, the judicious use of teacher-made and published materials.

7. Demonstrate a high level of behavior management capabilities in both group and individual situations, using skills developed in SEd 521, Ps 507, and Ps 549.

8. Use the skills developed in the Secondary L.D. program to write an Individual Educational Plan for the L.D. adolescent.

9. Counsel the student so the (s)he will be able to realistically know his or her strengths and develop courage to compensate for any weaknesses.

SEd 526b SEMINAR IN LEARNING DISABILITIES

1. Utilize techniques of encouragement to facilitate development of a healthy self-concept in young adults.

2. Utilize diagnostic information from the process of teaching, testing, and reteaching.

3. Be familiar with what is available on the market and be able to judge the usefulness of new materials.

4. Assist other professionals on an M-Team to draft a student's total educational program.

5. Use assessment and evaluation techniques described above to discuss a student's exceptional educational techniques with members of a multidisciplinary team.

6. Adapt process strengths and weaknesses into product teaching.

7. Discuss establishing good school relationships, including scheduling children to facilitate mainstreaming.

8. Describe an effective reading program for a specific student including reading, spelling, oral and written composition for specific case histories.

9. Describe an effective math program for a specific student.

10. Describe a workable in-service program for regular classroom teachers and administrators.

SEd 522b LANGUAGE DISORDERS IN ADOLESCENT STUDENTS

1. Discuss normal language development as it affects adolescence.

2. Identify the major language disorders as they relate to adolescent students.

3. Will be knowledgeable in the content and conceptual modes of the ITPA in order to use this structure as one foundation for evaluation.

4. Discuss a) perceptual processing, b) linguistic processing, c) cognitive-semantic processing as they affect the learning styles of adolescents.

5. Plan curricular activities and manipulate environmental contingencies to remediate the language disorders that may be present in adolescent students.

Ps 407 BEHAVIOR MANAGEMENT

1. Discuss techniques employed in good communication models (Glasser, Gordon, Driekurs) to facilitate development of responsible, independent behavior.

2. Utilize the tools of behavior modification where needed to increase academic achievement and enable the student to play the role of the normal student.

3. Plan management systems that enable a student to rely less on extrinsic (tangible) motivation, and perform tasks for intrinsic, self-directed, goal-oriented reasons.

Ps 549 INDIVIDUAL AND FAMILY COUNSELING

1. Identify the community medical and social agencies that provide services to adolescents and their families.

2. Participate in the services offered to L.D. adolescent students by community agencies through field work.

3. Participate in counseling exercises (role playing, triads) to prac ice effective communication skills and problem solving te hniques.

4. Counsel the student so that (s)he will be able to realistically know his or her strengths and develop courage to compensate for any weaknesses.

5. Discuss techniques for helping students discover realistic life goals.

6. Explain the student's strengths and weaknesses to parents and other professionals so that good living and working relationships are enhanced.

SEd 537 ISSUES IN SPECIAL EDUCATION

1. Relate the philosophical development of law as it relates to L.D. students.

2. Describe the major schools of thought that affect the way children are placed and educated in our society, (Psycho-medical, Beh. Sociological, Existential).

3. Critically read and discuss the major articles and federally subsidized studies affecting the trend toward least restrictive alternative legislation (Dunn, Blatt, Issues in Classification of Children).

4. Describe the following:

   a. Implementation and implications of Wisconsin P.L. 115.
   b. Implementation and implications of Federal Law 94-142.
   c. Implementation and implications of Chapter 90, S.E.N.
   d. Multi-Disciplinary Teaming procedures, identification and programming for the Exceptional Child. Planning I.E.P.'s.
   e. Licensing Laws and Procedures for establishing Day Care, Private Practice, Tutoring, etc. as determined by the Department of Health and Social Services.
   f. Child Advocacy Implications and procedures for teachers of Exceptional Children.
   g. Parent Rights and obligations, Implementation, procedures as dictated by law, and pending legislation.
   h. Current Research in Effective programming models, categorical approaches.
   i. Implications and Legal ramifications of a) Drug Therapy Programming and b) Behavior Modification Programming.
   j. Implications of confidentiality as indicated by the Buckley Amendment (rights of privacy).

MAINSTREAM BEHAVIORS CHECKLIST APPENDIX D Student: _____

1 = Usually 2 = Occasionally 3 = Seldom 4 = Never

This student gives evidence that he/she:	1	2	3	4
1. Arrives for class on time				
2. Brings necessary work materials to class				
3. Uses appropriate question asking behaviors				
4. Can remain in-seat for an entire class period				
5. Can handle minor frustrations like waiting, or dealing with difficult directions				
6. Initiates work after directions are given				
7. Hands assignments in on time				
8. Does assignments neatly and in a readable manner				
9. Can organize materials logically (notebooks, assignments)				
10. Can maintain a notebook				
11. Can review independently for tests				
12. Will answer questions in a mainstream class(called on)				
13. Will volunteer answers in mainstream class				
14. Can deal critically with filmstrips				
15. Can deal critically with movies				
16. Can deal critically with recordings				
17. Can copy notes from the board				
18. Can take notes independently from a lecture				
19. Can outline, or take notes from a textbook				
2o. Asks questions when confused				
21. Can handle tests and quiz situations without panic				
22. Is interested in doing well				
23. Will try again after a failure to improve a grade				
24. Will do extra credit work when it is accepted				
25. Will devote time before or after school for extra help				

ource: Barbara Gierhahn, LD teacher
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MAINSTREAM REPORT: _____

Teacher _____ Date _____

Attendance: Good _____ Poor _____ Tardy _____

Class Participation : Good _____ Poor _____ Comments _____

Assignment Response: Good _____ Poor _____ Past Due Assignments: _____

_____

Grade (at this time) _____ Conference or Assistance requested: _____

_____

****

Teacher _____ Date _____

Attendance: Good _____ Poor _____ Tardy _____

Class Participation: Good _____ Poor _____ Comments _____

Assignment Response: Good _____ Poor _____ Past Due Assignments: _____

_____

Grade (at this time) _____ Conference or Assistance requested: _____

_____

****

Teacher _____ Date _____

Attendance: Good _____ Poor _____ Tardy _____

Class Participation: Good _____ Poor _____ Comments _____

Assignment Response: Good _____ Poor _____ Past Due Assignments: _____

_____

Grade (at this time) _____ Conference or Assistance requested: _____

_____

****

Teacher _____ Date: _____

Attendance: Good _____ Poor _____ Tardy _____

Class Participation: Good _____ Poor _____ Tardy _____

Assignment Response: Good _____ Poor _____ Past Due Assignments: _____

_____

Grade (at this time) Conference or Assistance Requested (on back)

Appendix E

MATERIALS FOR THE SECONDARY STUDENT:
READING, SPELLING AND WRITTEN COMPOSITION,
MATHEMATICS, SOCIAL STUDIES AND OTHER AREAS*

READING

1. Action and Double Action Kits. Highly motivating work, 2-4 grade level, 3-5 level books. Scholastic Book Services, 2280 Arbor Blvd., Dayton, Ohio 4539. Price: $117.50 each.

2. Activity Concept English 301, 401, and above. A kit designed for remedial English for high school boys. Excellent sentence writing packet. Cardboard models to put together following directions written at 4.5 and above. Part of kit may be used with 1.0 level student. Teacher's Planbook is a necessity. Scott, Foresman and Company, Glenview, Illinois 60025. Price: approximately $13.00 for both.

3. Bank Street Basal Series. Older junior high boys in urban schools have used these without feeling that the texts were too immature. MacMillian Publishing Co., 866 Third Ave., New York, New York 10022.

4. Classification Cards. Sets A-C. Cards containing several categories with words out of order. Harcourt Brace Publishing Co.

5. Clues to Reading Progress. 2.5 to 5.0. Three magazines to use with tapes. Stories are motivating. The answers are given on the tapes. Phonics taught should be used as reinforcement only. (This kit is expensive, but may be in the school's library collection.) Education-Progress Corp.

6. Critical Reading Workbooks A-H. Workbook materials for developing logical thinking. Can be used with 2.0 readers. Uses a pencil that disappears after a few hours. Ann Arbor Publishers, P.O. Box 388, Worthington, Ohio 43085. Price: Workbook A - $3.00, Workbook B - $3.50.

*NOTE: Prices listed are given as a guide to purchasing only. These materials were recommended by secondary LD teachers, and consist of a sample of what is currently available. (Addresses for some major publishing companies are not listed.)

7. Corrective Reading Program. Systematic direct instruction in decoding and comprehension. Level A consists of two texts, word attack and thinking (for non-readers). Level B is for students reading from 2.0 to 4.0. It also has two programs. Level C is for students reading above 4.0. SRA, Inc., 115 N. Wacker Drive, Chicago, Illinois 60606. Price: Teacher materials approximately $50.00; student texts - $1.60 to $7.50.

8. Functional Words and Phrases for Everyday Living by David J. Somers. Under 2.0 reading level. Frank E. Richards Publishing Co., Inc. Price: $1.95.

9. Guidebook to Better Reading. Motivating stories for the older student reading below 2.0. Phonics lessons must be used for reinforcement only. The first six lessons are listening comprehension which can be put on tape. Economy Co., Drawer A, 5811 W. Minnesota, Indianapolis, Indiana 46241. Price: $1.59 each. Order teacher's manual at same price.

10. Mott Comprehension Series. 2.0 to 6.0. Programmed workbooks with interesting stories. Allied Education Council, P.O. Box 78, Galien, Michigan 49113. Price: $2.85 each.

11. Mott Word Bank. Good aid to sight vocabulary building. All units done with photographs of the words. Allied Education Council, P.O. Box 78, Galien, Michigan 49113. Price: $3.85.

12. Modern Curriculum Press Comprehension Series. Begins at 4.0. Use is similar to Barnell-Loft series. Building Word Power, D. Increasing Comprehension, D. Working with Facts and Detail, D. Organizing Information, D. Using Reference, D. Higher levels are available. Modern Curriculum Press, 13900 Prospect Road, Cleveland, Ohio 44136. Price: $1.08 each.

13. Pal Paperbacks, Kit A & B. Very good supplementary reading. Xerox Education Publications, Education Center, Box 1195, Columbus, Ohio 43216. Price: approximately $36.00 each.

14. Point 31. Reader's Digest Series emphasizing high interest stories at first grade level. Reader's Digest Services, Pleasentville, New York 10570.

15. Practice in Survival Reading by Calvin Greatsinger. Label reading using photographs. New Readers Press, Laubach Literary International, Box 131, Syracuse, New York 13210. Price: approximately $5.00.

16. Reach: The Reading Extravaganza of American Cycling Hydroplanning Show. 2.0 to 5.0. Fast paced, interesting presentation on tapes. Phonics presentations need an introduction prior to assigning a lesson. Stories become rapidly difficult, so only 3.5 readers and above can go through the entire kit. The Economy Co. Price: over $100.00.

17. Read Better - Learn More. Books A-C. Technical terms and reading graphs, etc. covered well for reading in content areas. Ginn Publishing Co.

18. Reading Competence. Survival reading in labels, forms. Cambridge Book Co., 488 Madison Ave., New York, New York 10022.

19. Reading for Concepts A-H. Levels 1.6 to 8.9. Series of books emphasizing integration of comprehension skills. Good for the better reader. McGraw-Hill.

20. Reading Skills Builders. Reader's Digest. Magazine format with short selections and questions. Reading levels 1-8. Reader's Digest Services, Pleasentville, New York 10570.

21. Real Life Reading Skills, A Scholastic Program in Functioning Literacy by Levin. Overhead and run-offs. Scholastic Books.

22. Real Stories. Short, motivating true stories. Well-liked, fairly systematic. Globe Book Co., 175 - 5th Ave., New York, New York 10010. Price: $2.25 a book, for ten or more.

23. Remedial Reading Drills. Hegge, Kirk and Kirk. Excellent source for vowel families. George Wahr Publishing Co., Ann Arbor, Michigan. Price: $3.00.

24. Specific Skills Series. (Barnell Loft) Exercise Books designed for practice in comprehension skills: Locating the Answer; Following Directions; Using the Context; Getting the Facts; Working with Sound; Drawing Conclusions; Getting the Main Idea. Levels 1-9 in each. Barnell Loft, Ltd., 958 Church Street, Baldwin, New York 10510. Eight titles with levels A through L at $1.60 each.

25. Scholastic Scope. 3.0 to 5.0. A magazine with good plays to read as a group. Arrives weekly so it is new to the students. Scholastic has lower level, weekly newspapers too. Scholastic Magazines, Inc., 2200 Arbor Blvd., Dayton, Ohio 45439.

26. Survival Guides. Several workbooks such as Reading Schedules, Finding a Used Car, Supermarket Language, etc. James Book Publishers, 3541 Investment Blvd., Suite 5, Hayward, California 94545.

27. Troubleshooter 1 and 11. Workbooks good for practice in structural analysis skills. Houghton-Mifflin Company, 110 Tremont St., Boston, Massachusetts 02107.

28. Vocabulary Building Book 1-2. Good sources to increase word knowledge. World of Vocabulary by Rauch and Clements. Learning Trends, Globe Book Co., 175 - 5th Ave., New York, New York 10010.

29. Word Analysis, Levels 1-6, Joel Weinberg. A series similar to Barnell-Loft, only dealing with phonics. Macmillan Publishing Co.

30. You and Your World. 3.0 reading level. Excellent weekly news magazine. Xerox Education Publications, Columbus, Ohio 43216. Price: $2.30 per student per year. Teacher gets material to ditto for follow-up activities.

SPELLING

1. AVKO Sequential Spelling I-V. Systematic, direct instruction that emphasizes learning from one's own mistakes, structural analysis and word building without memorizing rules. Educational Research Foundation, Inc., 3084 W. Willard Road, Birch Run, Michigan 48415. Price: $10.00 each book.

2. The Bad Speller's Dictionary. Alphabetized by common misspellings. Random House.

3. Continuous Progress Spelling Kit. Often used with 4.0 and above spellers. Word lists are done by pairs of students following given format. Economy Company. Price: approximately $109.00

4. Michigan Programmed Spelling. Levels 1-8. The easiest spelling series available. One word per page in level 1. Uses chem-rite pen which disappears later. Room for sentence writing, test taking in book. Crossword puzzles to emphasize word meaning. Michigan Programmed Spelling, Ann Arbor Publishers, P. O. Box 388, Worthington, Ohio 43085. Price: $4.50.

5. Spelling Reference Book. One to two pages per letter of alphabet. Words listed only. 4th grade and below vocabulary. Reference book for writing assignment. Room to write additional words. Developmental Learning Materials, 7440 Natchez Ave., Niles, Illinois 60648. Price: $2.25.

6. Spell-It-Out, Phillip K. Trocki. For students in grades 7-12 who need a highly structured workbook for spelling difficulities. Globe Book Company.

WRITTEN COMPOSITION

1. Activity-Concept-English (ACE). Several levels of workbooks for writing and reading. Good use of photos and cardboard models for construction. Teacher's guide is essential. Scott Foresman. Price: approximately $12.00.

2. A Cartoon book - Time to Draw, by Frank Webb. This is a step by step method to draw simple cartoons. Simple cartoons. Good starter for writing. Teachers Exchange of San Francisco, 600 - 35th Ave., San Francisco, CA 94121.

3. English for Everyday Living, by Pallati and Reitman. Hardcover text on basics of grammar, letter writing, sentence structure. Good use of photos. Ideal Publishing Co., 11000 S. LaVerge, Oak Lawn, IL 60458.

4. Everyday Reading and Writing. New Readers Press.

5. Inexpensive posters for creative writing, art, music, and American History, about $.60 each. They will send you a large brochure of the selections. Giant Photos, Box 406, Rockford, IL 61105.

6. The Learning Skills Series: Language Arts, acquiring language skills, building, directing and continuing. Excellent workbooks to teach basic punctuation, letter writing, sentence construction. McGraw-Hill. Price: $2.50 each.

7. Sentence Combining. A paperback used by the teacher with sets of sentences about a topic of interest to adolescents. The challenge is to combine a dozen simple sentences into a longer one. Random House Inc., 201 East 50th St., New York, NY 10022.

8. The Simple Sentence in Seven Steps, by Hurt & Riese. A grammar and sentence structure workbook. McCormick-Mathers Publishing Co., Cincinnati, OH 45202. Price: Student-$2.10, Teacher-$2.64.

9. Write On! Spirit Masters. Darryle D. Purcell, Vol. 1, Ed. Insights, 20435 S. Tillman Ave., Carson, CA 90746. Very motivating dittos to encourage writing in cartoon format. Price: $4.95.

10. The Write Thing, Grades 7-12. To stimulate writing through the use of multi-media materials. Houghton Mifflin.

MATHEMATICS

1. Building Arithmetic Skills, 2nd Edition. The Learning Skills Series, by Hunter & LaFollette. Four workbooks with easy to read pages and excellent problems in consumer math. McGraw Hill/Webster Division.

2. Centicubes. Small cubes that snap together. They come with cards that have patterns to make. Used to teach area, especially in metrics. Creative Teaching Association, P.O. Box 7714, Fresno, CA 93727.

3. Consumer Buying - Basic Numbers and Money. This programmed workbook has a page of ads with four word problems on the opposite page. Excellent practice on grocery items, and some clothing and household goods. The Mott Basic Language Skills Program. Allied Educational Council, Galien, MI 49113. Price: $3.45.

4. Fraction Bars and Cards. Scott Resources, Inc., 1900 E. Lincoln, Box 2121, Fort Collins, Colorado 80521.

5. Individualized Computational Skills, Grades 1-12. Three boxes of pads of tear-off computation problems, and diagnostic tests. Houghton-Mifflin. Price: approximately $130.00.

6. Merrill Mathematics Skill Tapes. Cassettes, studybook in whole numbers, fractions, decimals. Charles E. Merrill.

7. Pacemaker Practical Arithmetic Series. The series contains excellent practice in very basic skills in consumer math. Word problems are illustrated and clearly presented in "Using Dollars and Sense." For junior or senior high. Fearon.

8. Reproducible Mathematics, by Robinson & Love. This program is a sequenced series of run-off masters available at seven levels. Word problems are at a low reading level with a large type format throughout the series. Approximately 450 sheets per level. Bowman/Noble Publishers, Inc., 4563 Colorado Boulevard, Los Angeles, CA 90039. Price: approximately $23 per set.

9. Spectrum Math. Six workbooks, red through purple. Good word problems. Clear presentation of the skills, generally covered in the regular math curriculum. More practice pages may be needed from other materials. Doubleday & Company/Laidlan Brothers. Price: approximately $2.00 a book.

10. Unifix Cubes. A box of 100 cubes that is helpful to demonstrate multiplication, division, square root and so forth. The cubes stick together which is an advantage over blocks. Unifix Creative Publications, P.O. Box 10328, Palo Alto, CA 94303. Price: $5.00.

SOCIAL STUDIES

1. America: Land of Change. Six books on American History and Government. Short stories with pictures, 5th grade reading. Workbook available. SRA Publishing Company.

2. American Adventure Series, Grades 7-12. High school level history texts. Additional materials available. A Nation Conceived and Dedicated, (Vol. 1); Old Hate, New Hope, (Vol. 2); Between Two Wars, (Vol. 3); Yesterday, Today, Tomorrow, (Vol. 4). Price: $2.25 each. Scholastic Social Studies Center, 904 Sylvan Avenue, Englewood Cliffs, NJ 07632.

3. The Americans: A History of U.S. Clear textbook for slow learners. Vocabulary words at top of page. Holt, Rinehart, and Winston.

4. Building the Modern Word (New Edition), by Reich, Krug & Biller. Clear, easy to use hard cover text on world history. The text has been written and organized extremely well. Harcourt Brace Jovanovich.

5. Communities and Social Needs. Third grade reading level. Class presentation for LD students. Laidlaw Company.

6. Current Events Filmstrips. A weekly filmstrip of current news. VEC, Inc., P.O. Box 825, Madison, WI 53701, (608) 831-6565. Price: $185.00 a year.

7. Current Events Filmstrips. Topic is given out a year in advance. Price: $135.00 for one filmstrip per month, i.e., Europe's New Look. N.Y. Times, Teaching Resources, Station Plaza, Bedford Hill, NY 10507.

8. Economics: The Adventures of Primero Dineco. A black and white cartoon book. Follett. Approximately $1.65.

9. Exploring Our State: Wisconsin. Excellent layout. Low reading level. Follet Publishing Company.

10. Government Simulations Kit, Shipwreck. Price: $9.95. For slow learners in social studies or economics. Scholastic Book Company.

11. In Your Country, 2nd edition by Margaret Hudson and Ann Weave. Fearon Publishers.

12. Living in Urban America, 4-5th grade. City government, drugs, police, welfare are excellent units. Comes with good filmstrips, picture cards (sequenced pictures), dittos, short chapters. Price: approximately $72.00 for kit.

13. Map Skills Books, 1-3. Colorful, simple map reading. Scholastic Book Services. Price: approximately $.60 each.

14. Map Reading 1 and 2. Miliken Publishing Co., St. Louis, MO, Duplicating Masters on basic map skills for slow learners. Price: $3.95 each.

15. National Geographic Society. Exploring the World of Maps. Filmstrips. Washington D.C. 20036. Price: approximately $100.00.

16. Our United States. Blakely and Wolde. Text and workbook. One state per 2 pages. Clear presentation. Low reading level. New Readers Press.

17. Promise of America: The Starting Line. Five paperback books. For slow learners in American History. Scott Foresman. Price: $12.00 per set.

18. Rand McNally Mini-Atlas, $1.00.

19. Readiness for Map Skills, 1-2; My Weekly Reader Practice Books. American Education Publications. Xerox, Education Center, Columbus, OH 43216.

20. Sets of Coins or Stamps. Visit a local exhibition. You may be able to buy sets of common currency or stamps very inexpensively.

21. Social Studies Outlines on a variety of topics. State Education Department. Bureau of Secondary Curriculum Dept., Albany, NY 12224. They will send a list of available units. Price: $2.00 - $3.00 apiece.

22. Target American History -- paper work text. Cut and paste map-work. Clear presentation of early history of U.S. Marfex Associates, Inc., 111 Barron Avenue, Johnstown, PA 15906.

23. The Three Branches of Government. Miliken. Duplicating Master. Price: $3.95.

OTHER AREAS

1. Basic Driver Education. Interstate Printers.

2. Be Informed Series. Survival education booklet. New Readers Press.

3. Deciding for Myself: A Value Clarification Series, by Wayne Paulson. Four sets of topics with easy to follow booklets of activities to/ for all youth. Winston Press, 25 Grovel and Terrace, Minneapolis, MN 55403.

4. Pathways Experiences in Science, by Blaustein, Blaustein and Greenleaf. Well done, soft cover text. Clear short presentation with good photos and illustrations. Low grade reading level. Globe Book Company.

5. Survival Education Series. Dozens of titles under a wide variety of topics. Janus Book Publishers. Average price of a workbook is $2.00.

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AVKO Sequential Spelling I-V. Education Research Foundation, Inc. 3084 W. Willard Road, Birch Run, MI 48415. Each book, $10.

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